DRUG & COSMETIC INDUSTRY

FEBRUARY, 1951

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FRANCIS CHILSON, Production Consultant
MILTON A. LESSER, Technical Editor
HARRY G. KELBLY, Raw Material Editor
FRANK CHILD III, News Editor
MAX FRANKEL, Art Director

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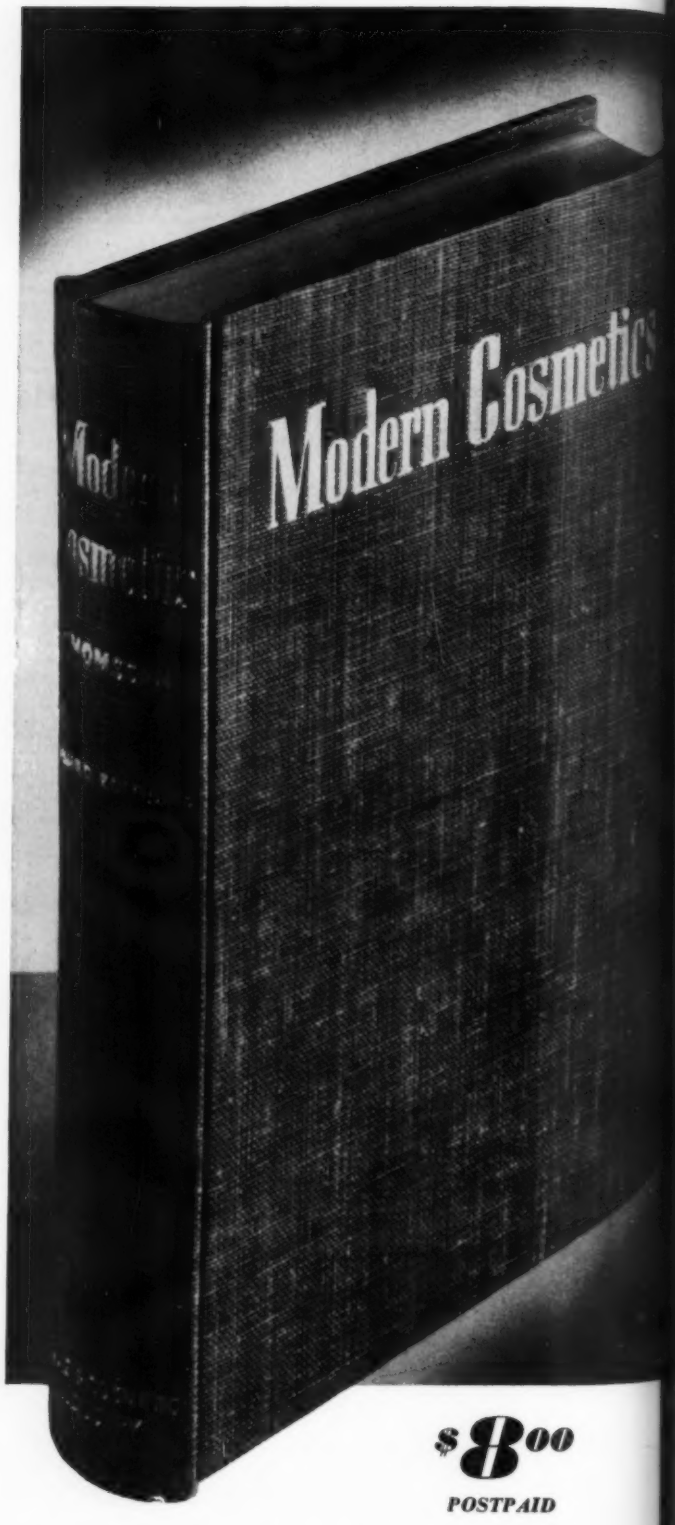

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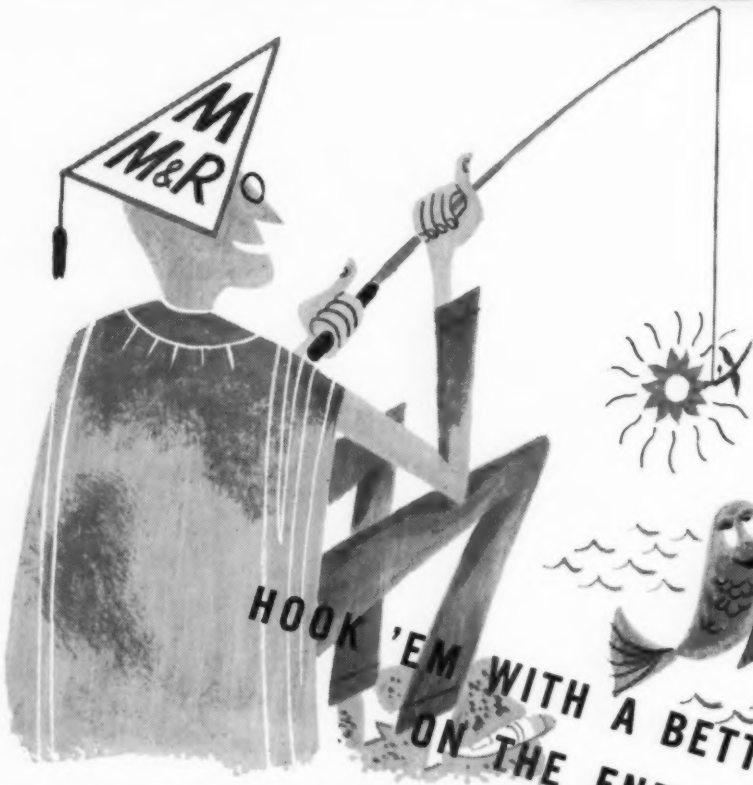

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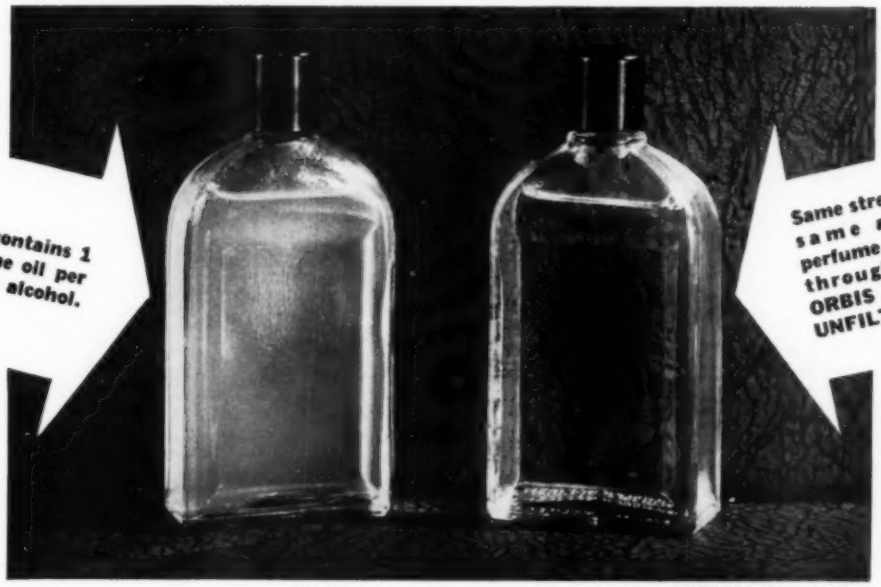
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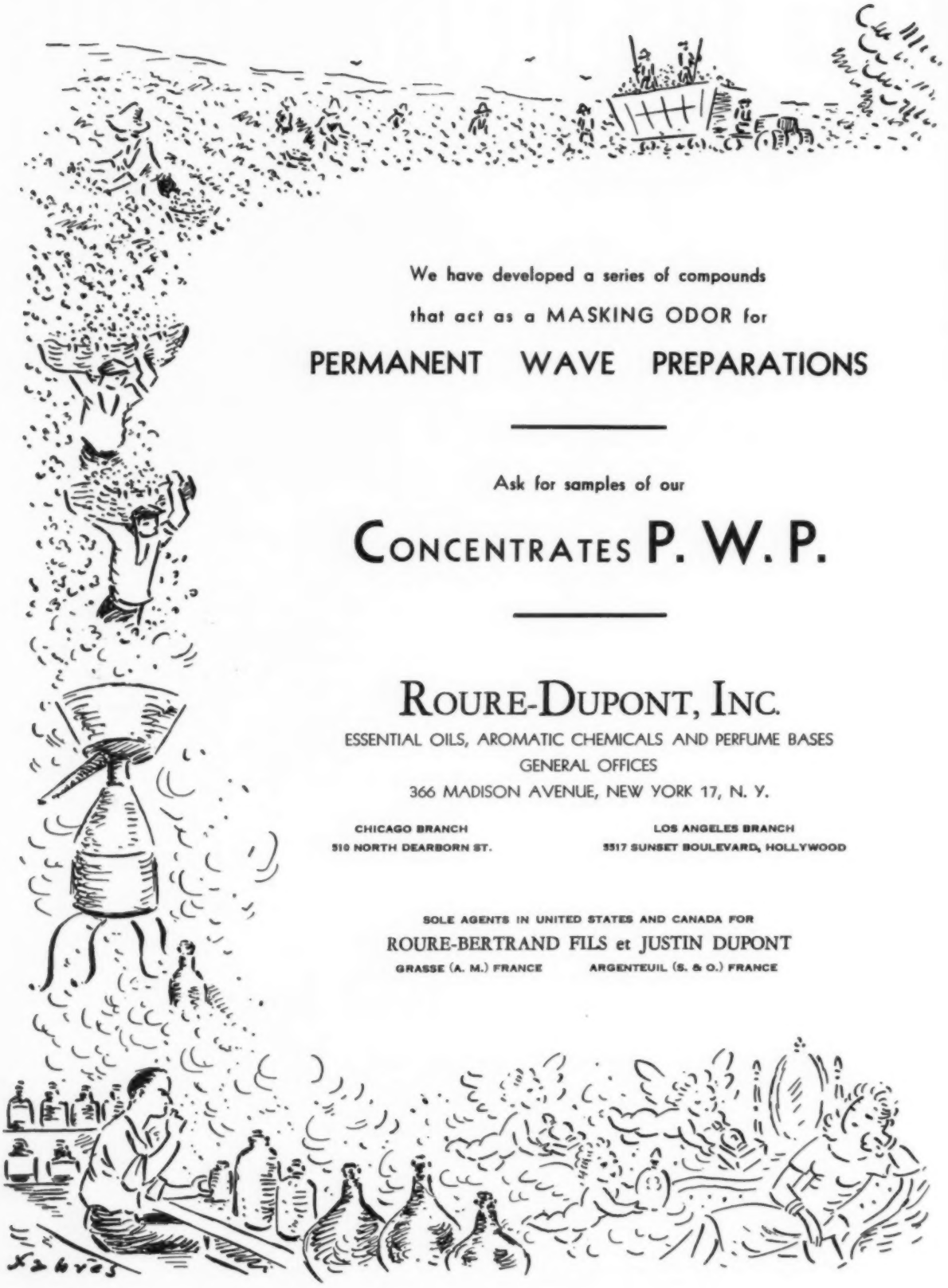

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The present Record incorporates within its listings all of the trade-marks of the prior book published by the Toilet Goods Association in 1936, and brings the compilation up to January 1, 1946.
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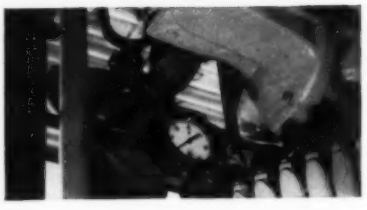

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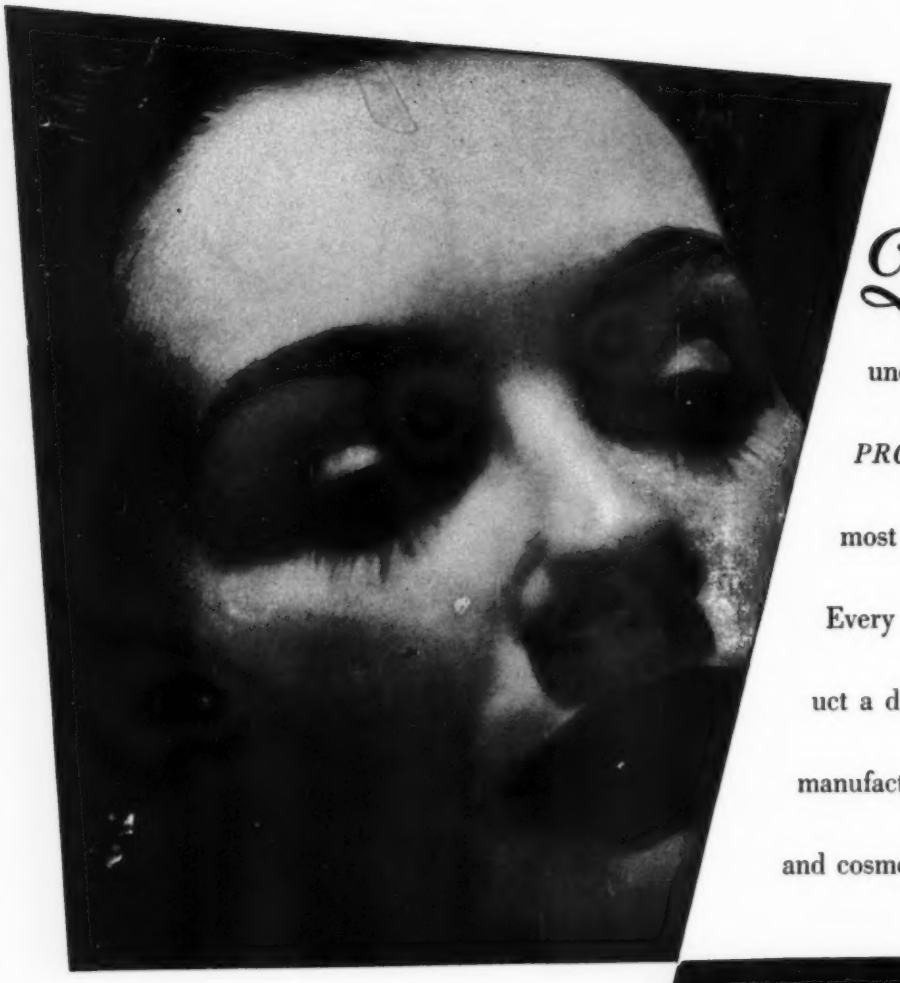

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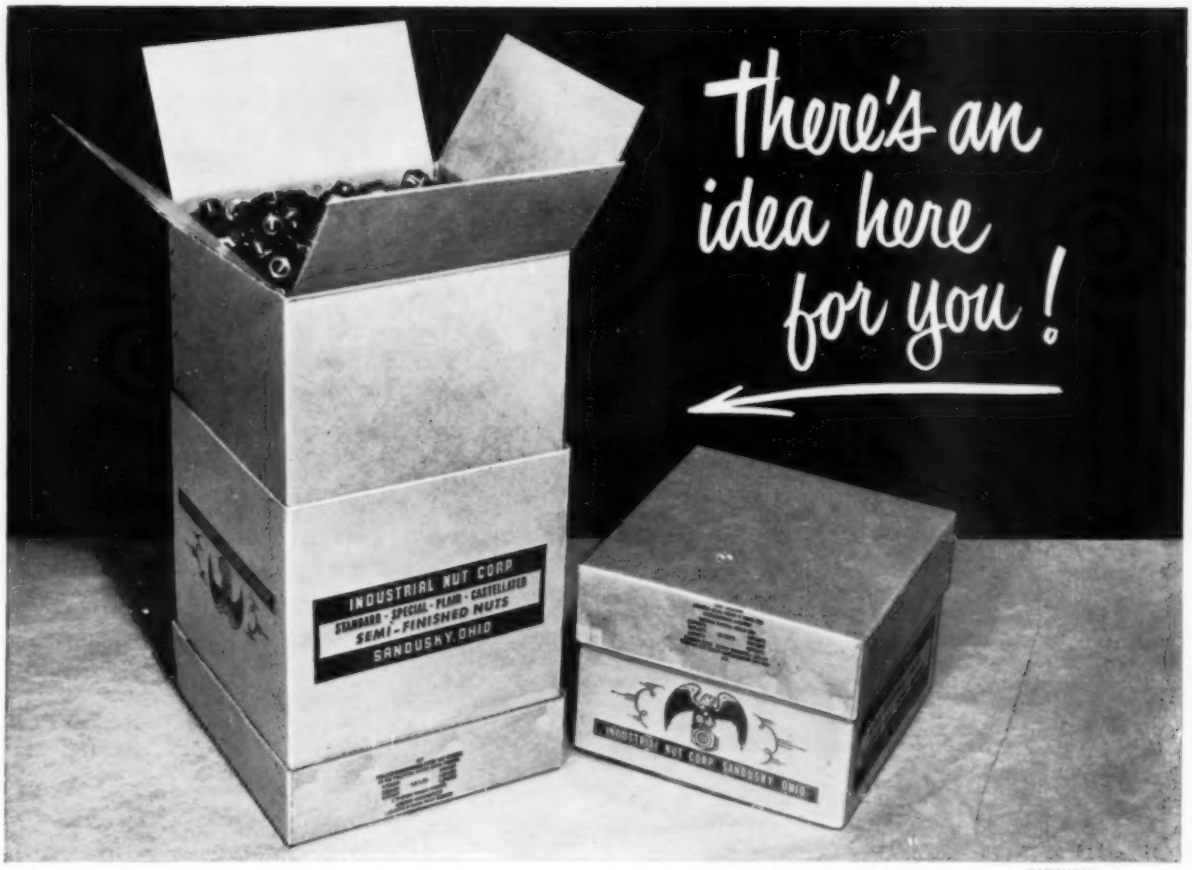

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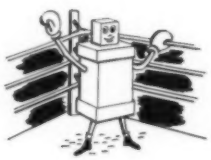

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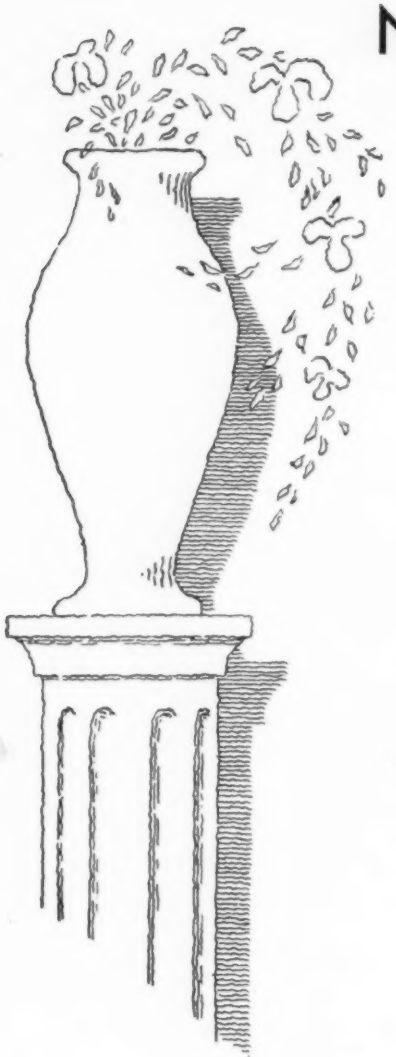

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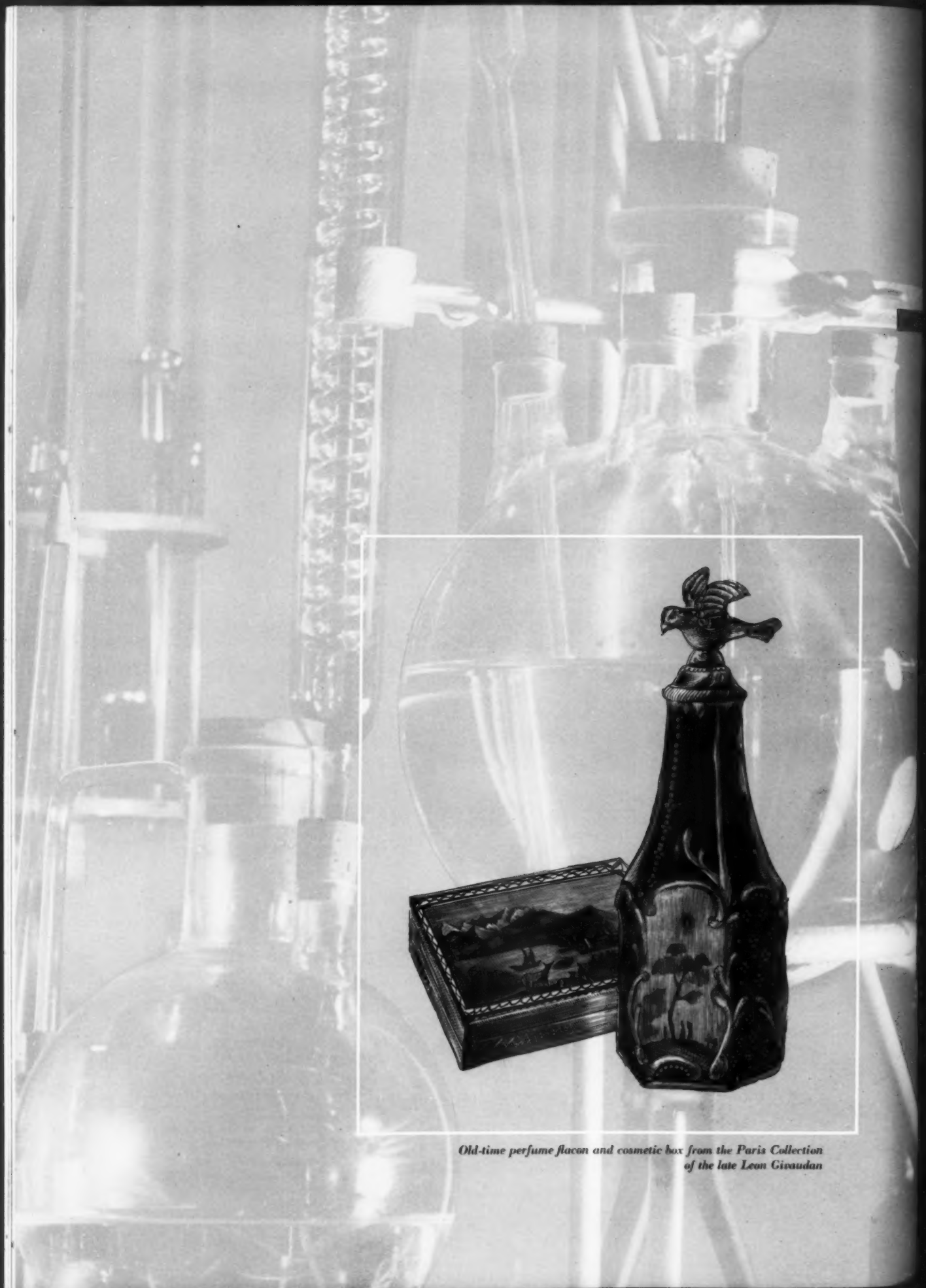

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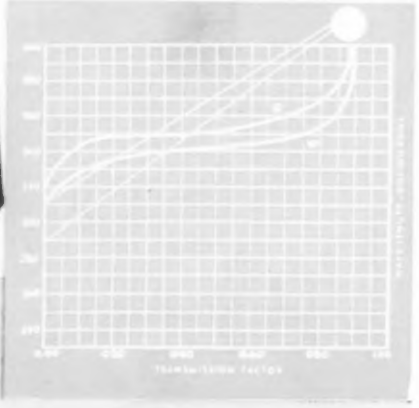

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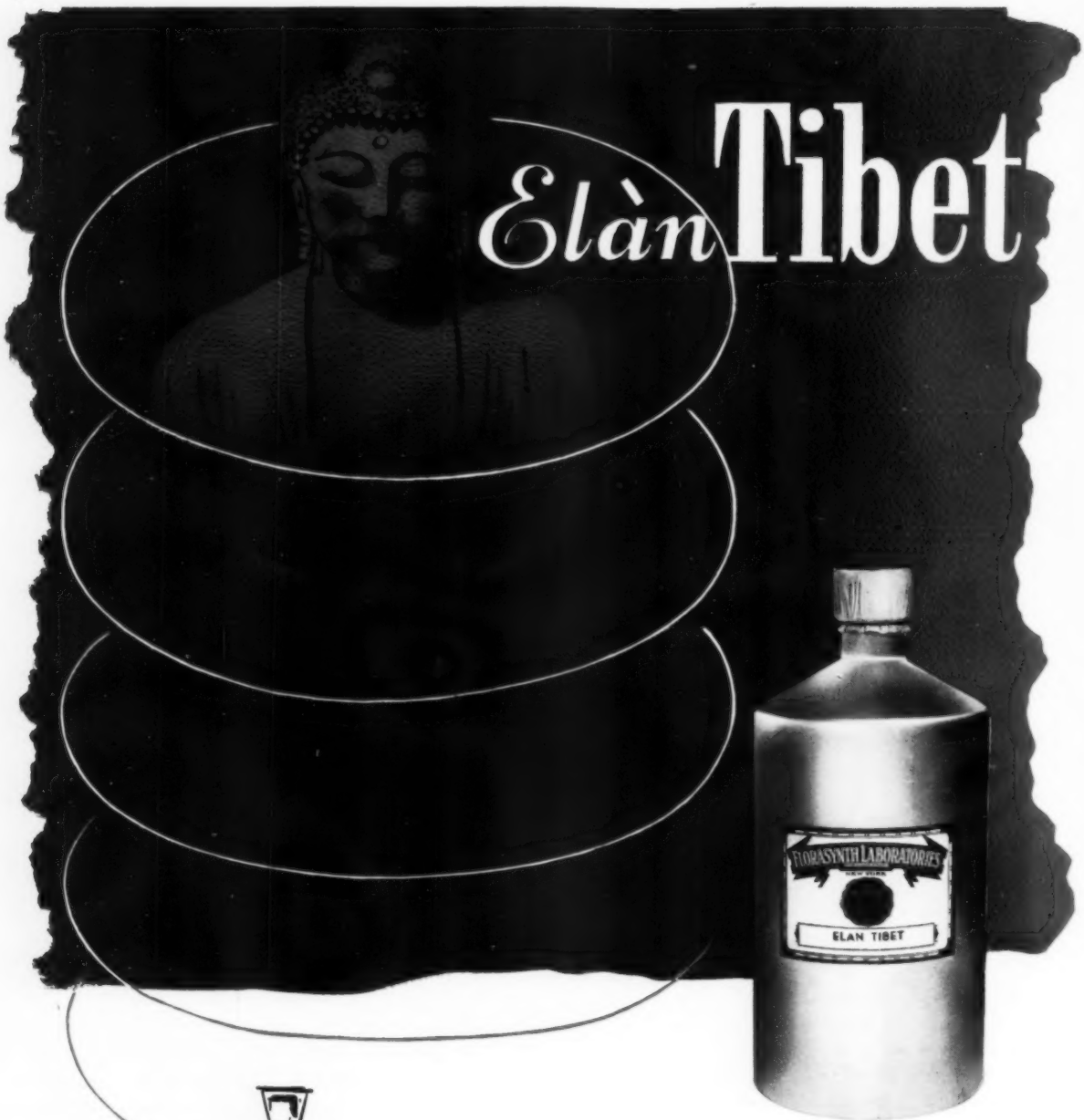

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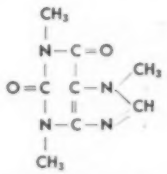

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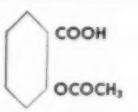

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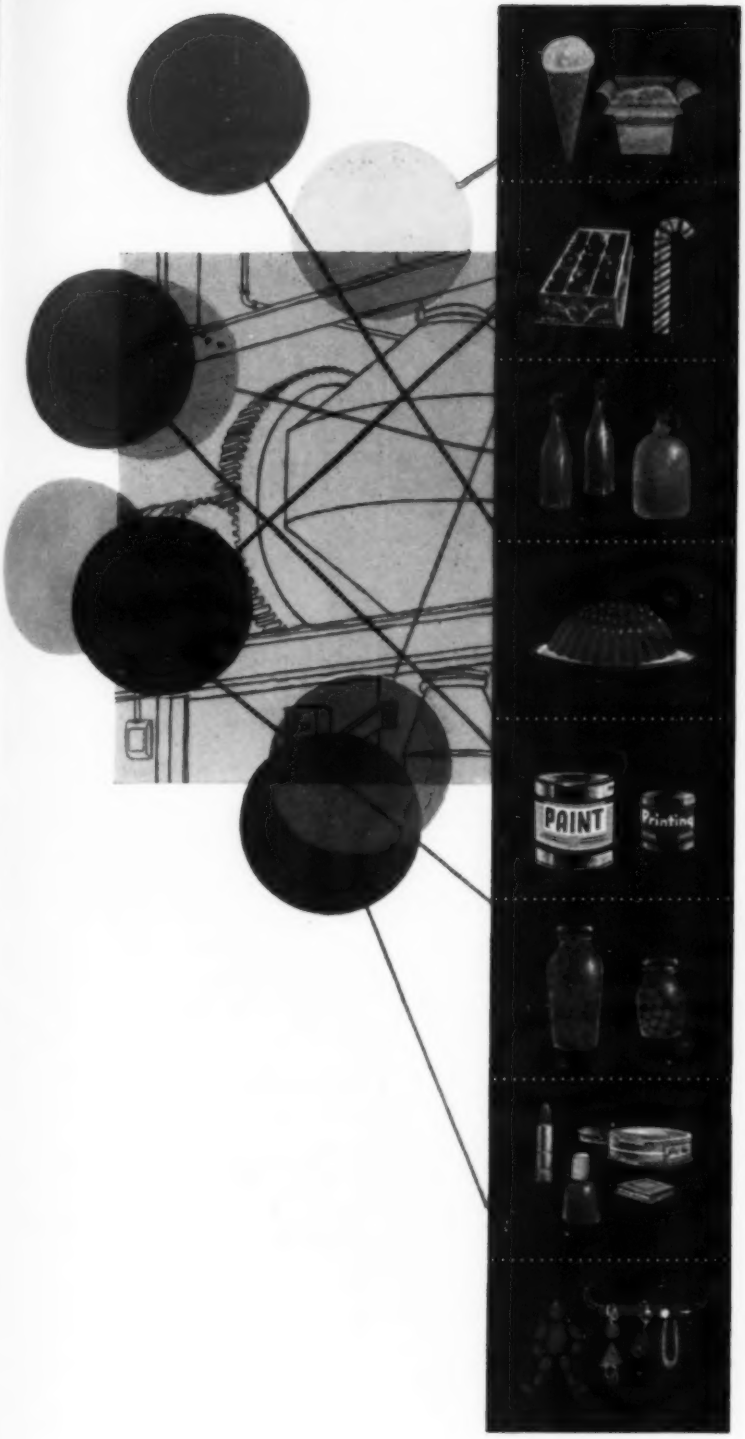

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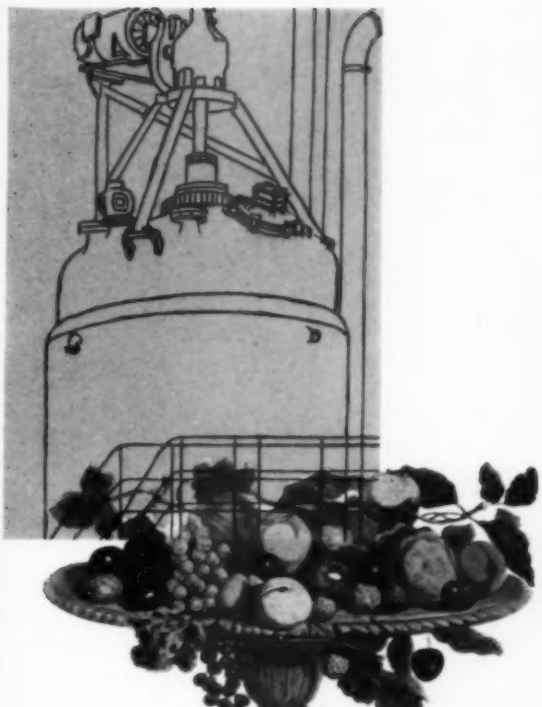

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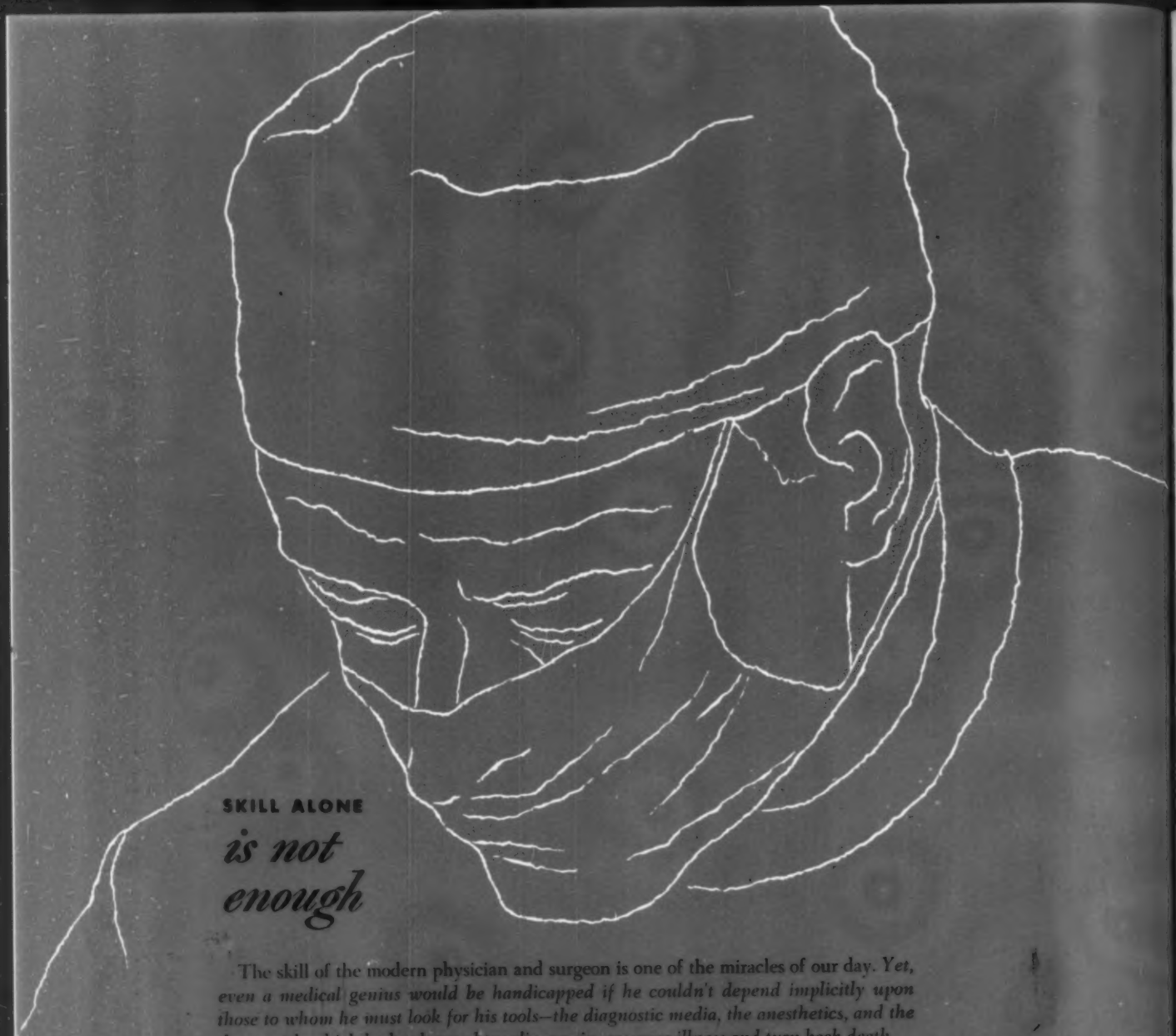

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A Million for Antibiotics by N. Y. C.

NEW YORK CITY Department of Hospitals spent a record amount of almost $2,000,000 in 1950 for pharmaceuticals for patients in city wards and clinics. This represents an increase of $215,000 over 1949 purchases, the additional expenditure resulting from increased use of the newer specifics. Nearly half of the $2,000,000 went for five antibiotics, penicillin, streptomycin, aureomycin, chloramycetin, and terramycin. The larget single expenditure was for aureomycin, $319,038, against $112,376 in 1949. Louis Samuels, director of the divisions of pharmacy for the city, said that use of aureomycin, chloramycetin, and terramycin rose sharply because of their effectiveness in a wide range of diseases such as virus pneumonia, genito-urinary and gastro-intestinal infections, septicemia, ostiomyelitis, ocular infections, meningitis, and chronic bronchitis.

Use of penicillin increased 42 per cent in 1950, the city buying 7,830,835 vials of 100,000 units each at a cost of $272,786, against 1949 purchases of 5,470,726 vials at a cost of $290,674. Use of streptomycin, used chiefly in tuberculosis cases, increased 44 per cent. In 1950, 474,740 one gram vials were purchased at a cost of $155,510, compared with 1949 purchases of 326,710 vials for $194,754.

Cortisone and ACTH are now being used in large amounts by the city. During the last ten months of 1950, 191.25 grams of ACTH were purchased at a cost of $20,865, and 727 grams of cortisone were bought at a cost of $28,642.

T. G. A. Emergency Committee

HEADED by Stanwood Morrill, of the Lambert Company, as Chairman, the Toilet Goods Association Committee on the National Emergency met last month to discuss the rearmament program and the various ways in which the toilet goods industry can cooperate with the government in conserving scarce materials and in continuing to supply adequate quantities of civilian goods during any period of emergency which may arise. Industry members who have problems relative to supplies of raw materials, containers, or other items essential to the production of their products either for the armed forces or for civilian sale are urged to present these problems to the committee whose headquarters will be that of the T. G. A. Besides the chairman, the following comprise the committee:

William M. Bristol Jr., Bristol-Myers Co.; Herman L. Brooks, Alexandra de Markoff Sales Corp.; Joseph A. Danilek, Mary Chess, Inc.; Paul H. Douglas, Bourjois, Inc.; Dr. Ralph L. Evans, Evans Chemetics, Inc.; Davis Factor, Max Factor Co.; C. T. Lipscomb Jr., Pepsodent Division, Lever Brothers; L. B. Whitehouse, Morton Mfg. Corp.; S. L. Mayham, Toilet Goods Association; Ralph P. Lewis; R. Ingram-Eiser, Luzier's, Inc.; W. T. Halstead, Pacquin's, Inc.; Joseph Keho, Dorothy Gray, Ltd.; Leo E. Lisner, Rimmel, Inc.; Wrisley B. Oleson, Allen B. Wrisley Co.; Charles A. Pennock, Hudnut Sales Co.; Northam Warren, Sr., Northam Warren Corp.; J. S. Weidhopf, Parfums Ciro, Inc.; D. H. Williams, Sterling Drug, Inc.

Fair Trade Non-Signer in Interstate Commerce

AS EVERYONE concerned with the application of the Fair Trade Laws knows, the provision of the forty-five State Fair Trade Acts which required non-signers of fair trade contracts to comply with the provisions of contracts signed by others, is the only thing that makes these contracts effective in the States in which they are in force. Also, everyone concerned with fair trade also knows that the Miller-Tydings Amendment of the Sherman Act, which allows manufacturers to operate in interstate commerce in the application of the provisions of these State Fair Trade Laws, is the only thing that makes fair trade workable on a nation-wide basis. If the application of the State Laws to non-signers becomes invalid on an interstate basis because of a decision that the Miller-Tydings Amendment does not support this provision of the State Laws, fair trade as it exists today, would be struck a mortal blow.

However, this point is being brought before the U. S. Supreme Court in the case of Schwegmann Brothers, a New Orleans retail store which did not sign a fair trade contract, v. Calvert Distillers Corporation. The District Court granted Calvert an injunction, and the appeals court affirmed this decision by a divided vote. The retail store has appealed to the U. S. Supreme Court for review; and the U. S. Department of Justice has submitted an amicus curiae memorandum supporting this petition. The Department argues that on its face the Miller-Tydings Amendment of the Sherman Act only exempts from it a resale price maintenance

contract sanctioned by a State Fair Trade Act, and that the non-signer clause is null and void in relation to interstate commerce. It claims that the dissenting opinion by the appeals court is the correct one, which says: "Thus Congress has legalized the *contract* validated by the State law, but not every provision of the statute. If . . . the State statute otherwise authorizes conduct or procedure which runs afoul of a Congressional protection of interstate commerce from unlawful restraint, . . . such provision of the State statute must yield to paramount Federal law."

Conditional Fair Trade Injunction

ANOTHER instance in which the court held that a manufacturer cannot play fast and loose with price maintenance under fair trade laws, is in the granting of a conditional injunction against price-cutting of General Electric household appliances by R. H. Macy & Co. In the case, Macy admitted sales below fair trade minimums, but contended that G. E. had waived and abandoned the benefits of the fair trade law by failing to restrain widespread price-cutting by other retailers. Macy also charged that G. E. did not come into court with clean hands and was not entitled to relief because it had discriminated in the enforcement of fair trade prices, which were not equitably enforced, and that G. E.'s who'ly-owned subsidiary, the General Electric Supply Corporation, had sold appliances at retail below the fair trade minimums.

Judge Greenberg's decision noted that in December 1948, Macy's complained to G. E. regarding fair trade price violations by discount houses. In its Letter Macy's enclosed articles appearing in a trade publication which set forth the operations of discount houses selling G. E. appliances at discounts. Judge Greenberg's decision read in part:

"To refuse an injunction in this case would result in irreparable injury to General Electric, since it would in effect render all of its existing fair trade agreements unenforceable and would result in the collapse of its existing price structure. To grant an injunction, providing the fair trade agreements are effectively enforced, would work no hardship on Macy's. In the interest of an equitable solution, therefore, an injunction will be granted to the plaintiff, conditioned on the continuation by it of its present vigorous enforcement activities."

This decision clearly indicates that the manufacturer must be vigilant in preventing violation of his fair trade prices, and that he cannot attack a large retailer for cutting prices, when many smaller ones are indulging in the same practice. In other words, retailers, who are naturally all competing with one another, must all be treated alike.

Fair Trade Price Rise

PRICES of drug store products sold under fair trade rose only 7.4 per cent from January 1, 1947 to December 1, 1950 in the face of inflationary pressures which forced the over-all consumer price index to an all-time high, according to a survey made by McKesson & Robbins for the Bureau of Education on Fair Trade. The study covered products which account for nine-tenths of the $2,400,000,000 annual drug store sales volume in proprietaries, pharmaceuticals, toiletries and sundries.

The study also revealed that fair-traded drug products increased 10.5 per cent from pre-war 1939 to December 1, 1950 compared with a 75.6 per cent rise in the cost of living as shown by the U. S. Bureau of Labor Statistics index.

"There would be no need whatsoever for government price controls of any kind in the United States in the immediate future," the Bureau concludes, "if the price behavior of all items in our economy since 1947 had been comparable to the price behavior of fair-traded products, and particularly fair-traded drug products."

The results show a 4.8 per cent rise in fair trade wholesale prices, compared with a 7 per cent increase in similar non-fair-traded goods, from January 1, 1947 to July 1, 1950, the start of the Korean crisis. From that date to December 1, 1950, fair trade prices rose an additional 2.5 per cent "under the pressure of expanding national defense," while non-fair-traded goods climbed 5.1 per cent, the survey reveals.

To assure accurate findings, the "broad spectrum antibiotics, ACTH and cortisone, which were introduced since January 1, 1947, were excluded. As a further check, the percentage of change was based on a "careful weighting to take account of the relative sales volume of all component products," the report explains.

In addition to the scientific analysis of prices of drug store products, an informal check was made by the Bureau of Education on Fair Trade of price changes in other fields where fair trade is used extensively. The findings, based on approximations, showed: a 2 per cent decrease in prices of "best-seller" books between December 1947 and December 1950; a 7 per cent increase in fair-traded jewelry prices, compared with a 10 per cent rise in all jewelry prices, since 1947; and a 10 per cent rise in fair-traded hardware products, compared with an 18 per cent increase for the field as a whole.

Greatest single price drop in the drug survey was 66.4 per cent for fair-traded antibiotics in the pharmaceutical category. Other fair-trade pharmaceutical price decreases were 16.6 per cent in muscle stimulant products and 4.8 per cent in vitamins, according to the study. Sanitary napkins showed a 26.5 per cent increase for the survey period, greatest single rise among fair-traded items. Non-fair-traded sanitary napkins climbed 36.2 per cent in the same period, it was found.

Wage and Hour Minimums

THE Wage and Hour and Public Contracts Division of the Department of Labor held a hearing last month on wages and hours in the drug and cosmetic industry. Manufacturers included in these categories were not deemed to include manufacturers or packagers of shaving cream, shampoo, essential oils, glycerin, and soap, or millers or packagers without further processing, of botanical drugs.

A survey made in May 1950 by the Bureau of Labor Statistics, showed that workers in plants of manufacturers of pharmaceuticals for the medical profession were paid the median rate of $1.29 per hour, which was 20 cents an hour higher than for workers in plants manufacturing pharmaceuticals for the public. Workers in cosmetic manufacturing establishments received a median rate of $1.06. Dr. Pragen, a labor representative, submitted a survey of negotiated increases since May 1950, which showed an increase of 10 cents per hour in the median rate. Based on the survey of May 1950, the cosmetic industry recommended for consideration a minimum wage of 85 cents per hour, with 75 cents per hour for beginners not to exceed a ninety day period. No minimum wage recommendations were made for the drug industry.

However, the UMW (District 50) representative recommended for the drug industry a minimum wage of $1.20 per hour with no differential in "gate-pay" or hiring-in wage. He was opposed to learner or apprentice differentials, and also was opposed to regional and industry differentials. For the cosmetic industry he recommended a minimum of $1.05 per hour, with $1.00 as the minimum for "gate-pay" for 30 days.

Dr. Pragen, representing a chemical workers union, said the actual median rate today in the drug industry is $1.22, and the most frequent minimum wage $1.29, this latter figure corresponding with the median rate obtained from the May 1950 survey. Citing increases in wage rates since the survey, amounting to approximately 10 cents per hour, he recommended a minimum wage of $1.20 per hour for the drug industry, with no differentials of any kind. For the cosmetic industry he recommended a minimum of $1.05 per hour, with a 5 cents differential, or $1.00 per hour hiring-in pay for the first 30 days of probation.

Mr. Siegal, another labor representative, pointed out the wide differential between organized and unorganized plants, and contended that only wage rates of organized plants represent a true picture of the wage structure. His study of the May 1950 survey indicated to him that the prevailing minimum in the drug industry today is $1.10, and he recommended this as a minimum, with $1.05 as a hiring-in rate for not to exceed 30 days. He opposed regional and industry differentials. For the cosmetic industry he recommended a minimum of $1.00 per hour, with a 5 cents differential for hiring-in rate for not to exceed 30 days.

Meeting Price Competition Under R-P Act

IN THE case of the Standard Oil Company v. the Federal Trade Commission, the U. S. Supreme Court overruled the Commission and the Circuit Court of Appeals which had upheld the Commission. The case involved the granting to two jobbers in the Detroit area of lower prices on gasoline to meet lower prices quoted to these two jobbers by competitive producers of gasoline. Justice Burton, in the prevailing opinion, said that:

"Congress did not seek by the Robinson-Patman Act either to abolish competition or so radically to curtail it that a seller would have no substantial right of self-defense against a price raid of a competitor."

However, the minority opinion of Justice Reed went on the theory that Congress had granted to the Federal Trade Commission the right to decide the cases on the the facts. His statement on this point reads:

"The impossibility of drafting fixed words of a statute so as to allow sufficient flexibility to meet the myriad situations of national commerce, we think led Congress in the Robinson-Patman Act to put authority in the Federal Trade Commission to determine when a seller's discriminatory sales price violated the prohibitions of the anti-monopoly statute, Sec. 2(a), 49 Stat. 1526, and when it was justified by a competitor's legal price."

Justice Reed then observes:

"The disadvantage to business of this choice was that the seller could not be positive before the Commission acted as to how far he might go in price discrimination to meet and beat competition."

This last observation on the part of Justice Reed is the main complaint that business men have voiced for many years regarding the government of this country being in the hands of bureaus rather than where it belongs, namely in the hands of the Congress which means in the hands of the people. And here is an opinion of our highest court—thank God it is only a dissenting opinion—stating that the abdication of Congress to bureaus is right.

More Cortisone Facilities

NEW FACILITIES which will more than double Merck's output of cortisone will be operating in late 1952 at the company's Cherokee plant near Danville, Pa. More than 1,400 major items of equipment are essential to this complicated synthesis. It has been estimated that the raw materials to be used each month in producing cortisone at this new plant would fill a freight train almost a mile long. The equipment will be compactly housed in two major buildings with 66,000 square feet of floor space. One of these is an existing structure, while the other one is to be erected. Military authorities have stated that arthritis was a major cause of medical evacuation of American soldiers from war theaters in World War II, and that this disease caused the loss of 275,000 mandays among Army personnel during the intensive war years 1943-45.

Government Medicine in New Zealand

THE ANNUAL report of the New Zealand Health Department for 1950 contains the following statements by Duncan Cook, director, Division of Clinical Services:

"General medical services alone account for an expenditure of £2,328,154, which represents 6,208,410 individual services by medical practitioners during the year to less than 2,000,000 people or an average of more than three attendances per head of the population.

"Pharmaceutical services cost £2,043,843, an increase of £250,684 over last year's expenditure. For this sum 7,240,000 prescriptions were dispensed at an average cost of 5s. 7½d., which amounts to approximately 21s. per head of the population. The rise in cost of pharmaceutical supplies has been due to many factors, one of which is that during the last ten years many new drugs which are extremely costly have been introduced, to the great benefit of the community. Without social security the majority of citizens would not have been able to pay for these expensive drugs. A reasonable increase in the amount and costs of medical and pharmaceutical services was to be expected with the development of the social security system in New Zealand, as there is no doubt that many people did not receive sufficient medical services and were unable to pay for needed medicines in the days prior to 1938.

"However, the increases in the cost of general medical services and pharmaceutical supplies have been of such magnitude as to lead to serious misgivings as to whether State medical insurance against sickness is practicable or whether the best method of payment for services has been adopted. In this connection the method of payment of practitioners should neither encourage quantity rather than quality of service, nor should it encourage the people to make unnecessary demands on practitioners for their services. Private insurance companies in the past have experienced the same phenomena with accident and sickness policies and have protected themselves against financial loss by limitation of policies both regarding the nature of the illness and its duration."

"This report comes at a critical stage in the development of social security medicine in New Zealand. It is obvious that unless the desired reforms made possible by the new legislation of last session provide satisfactory

remedies, the present system of social medicine in New Zealand will have to be either modified considerably or replaced by a system more readily controllable."

"To the economist, the high tariff is a headache but to the mobilization officer it seems to be the only solution," says Captain Ernest T. Kretschmer, U.S.A.F. (MSC), in a discussion of the Mobilization of the Medical Supply and Equipment Industry in the U. S. Armed Forces Medical Journal. Captain Kretschmer arrives at this conclusion after explaining that prior to 1939, about 85 per cent of the surgical instruments used in this country were imported, and now the inflow from abroad is large, resulting in the layoff of skilled workers in this country.

F. T. C. To Use Injunction Against Advertisers

THE Federal Trade Commission has expressed its intention of proceeding against certain types of advertising by injunction. The Wheeler-Lea Amendment to the Federal Trade Commission Act granted to the Commission the right to apply to the Federal District Court in the district of the defendant for an injunction to prohibit publication of advertising pending the taking of evidence by the Commission and its final disposition of the case. Thus far the Commission has not used this injunction procedure. However, last month the Commission issued the following statement of policy:

"In those instances where it appears to the Commission that the public interest requires such action, it is the policy of the Commission to apply to the courts for injunctive relief pursuant to the provisions of section 13 of the Federal Trade Commission Act, when it has reason to believe that:

"(a) The advertising of a product is false in a material respect and there is reasonable probability that the use of the product may cause serious injury to health;

"(b) A product is falsely represented in advertisements as adequate treatment for conditions in which the failure to administer adequate treatment may seriously imperil health;

"(c) The advertising of a product is false in a material respect and there is reasonable probability that its dissemination will result in irreparable and substantial financial injury to the public."

Health Insurance Mushrooming

VOLUNTARY health insurance is spreading so rapidly that a coverage of 90 million persons in this country against major costs of illness should come within the next two or three years, states Dr. Elmer L. Henderson, president of the A.M.A. Between 70 and 72 million people now have some form of voluntary health insurance, he says, pointing out that the United Medical Service, operating in the New York metropolitan area, has just passed its 2 million mark in enrollment. The first plan to reach that figure was the Michigan Medical Service. He said further:

"Together, the achievements of these two great medical care plans illustrate dramatically the eternal truth which some of our detractors would deny—that voluntary health insurance is a growing, successful, practical method of taking the economic shock out of illness. The United Medical Service, for instance, has reached its present size in six and one-half years. It operates in the 17 counties of New York State, with the active approval of the Medical Society of the State of New York and of the medical societies in those 17 counties. Half a million members were gained during 1950—one fourth of the total enrollment. The goal for the next year or year and one-half has been set at a further increase of one million members.

"There are now 72 Blue Shield plans in 41 states. Participating in their operation are 113,000 out of 150,000 physicians who are in active, private practice. Last year the Blue Shield plans paid out $150 million for surgical and medical services rendered to member patients; this at the rate of 82 cents of every dollar paid in premiums. The Blue Shield plans are enrolling members at the rate of 28,000 every working day, and they now protect approximately 12 per cent of the population—more than 17 million people. Other nonprofit medical care plans not yet in the Blue Shield group cover an additional 2.25 million persons. During 1950 the Blue Shield plans of the nation gained 5 million new members, an all-time record growth.

"The Blue Cross hospital plans kept pace. They added more than 3 million new members in 1950, carrying them beyond the 40 million mark in total enrollment. Out of every premium dollar, Blue Cross plans are paying out close to 88 cents in benefits to their member patients."

Getting Civilian Needs

THE FUNCTIONS of the Federal Security Agency as a claimant agency were described last month before a luncheon meeting of the Drug, Chemical and Allied Trades Section of the New York Board of Trade by Federal Security Administrator Oscar R. Ewing. Explaining that Defense Mobilization is headed by Charles E. Wilson, and under Mr. Wilson, General William H. Harrison heads the Defense Production Administration, Mr. Ewing explained that the Secretary of Commerce has established in his department, a National Production authority, under which he designated 19 claimant agencies which will act for the consumers' interest in their own spheres of responsibility. The Federal Security Agency is the official claimant before NPA in respect to school and hospital construction other than veterans' hospitals; and the domestic distribution of supplies and equipment needed in the fields of health, education, welfare, welfare, recreation and related activities. The major policy responsibilities of the NPA having to do with materials control have been transferred to the Defense Production Administration headed by General Harrison.

The claimant problems of the Federal Security Administration in the field of health involves requirements for maintenance of health of the civilian community; medical and surgical services; dental and nursing services; pharmaceutical, laboratory, hospital, radiological and other related services. It covers the requirements of all Federal, State, and local government health activities, and all health institutions, and it may also cover the requirements of other health activities not yet defined. The claimant activities in the health field will be handled by the U. S. Public Health Service of the Federal Security Administration.

Mr. Ewing pointed out that by the end of the year only 18 per cent of our total national production will be going to the military, compared with over 45 per cent during 1945. "We are not as yet, therefore, in any sense, likely to face the critical shortages we had to deal with in 1942, 1943 and 1944," said Mr. Ewing. On the other hand, he indicated, during the last war, the demand was only for the duration, while now it is for an unknown length of time which may be ten years, or may be for 25 years. "That makes a tremendous difference in our planning," he stated.

Cortisone Patent Pooling Allowed

GREATLY increased production and cost reduction of cortisone is indicated as the result of patent pooling and licensing permitted by Federal Judge William F. Smith in Newark, on January 29. The concerns which will exchange patents are Merck & Co., Research Corporation, Schering Corporation, Organon, Inc., and Ciba Pharmaceutical Products, Inc. Due to the fact that an anti-trust judgment had been entered in 1941 against Schering, Organon, and Ciba, it was necessary to obtain a consent order modifying this judgment before pooling and licensing of the patents could legally occur. The modification order was consented to by the Department of Justice for reasons of public health, but the Department reserved its right to prosecute any anti-trust violations which may occur in the pooling and licensing operations.

The Antihistamine Controversy

THE USE of antihistaminics for the treatment of colds remains a most controversial subject with organized medicine apparently determined to undermine these products, if possible, so long as they are advertised to the public. It will be recalled that the medical profession kept up a steady barrage against "indiscriminate use" of vitamins, comparing them to the "tonics of old," so long as vitamins were widely advertised to the public. Although the medical profession was prescribing vitamins quite indiscriminately itself while this attack was going on, the barrage suddenly stopped once practically all of these manufacturers of advertised vitamin preparations threw in the sponge. The victory was complete: vitamin preparations were in the hands of the medical profession.

The job being done on antihistaminics for colds bears a striking resemblance to that done on vitamins. In the February Reader's Digest, Paul de Kruif confirmed the approval of antihistaminics for colds published in that magazine in the December 1949 issue of that magazine, stating: ". . . the question is not whether to use antihistamines for colds but which one to use."

However, the New England Journal of Medicine published in late January a report of a three-month study at Boston University on the effect of three antihistaminics in the treatment of the common cold which fails to reveal "any effect of the drugs in the dosage used that differed significantly" from a placebo of milk sugar. The placebo was given to one-fourth of 1,214 persons studied, the other three-fourths being given 10 mg. tablets of trimeton, 25 mg. tablets of neohetramine, and 25 mg. tablets of necantergan.

Still another report published late in January concerns experience with the Schering combination of chlortrimeton with aspirin, phenacetin, and caffeine. This was published in the International Archives of Allergy and Applied Immunology, official organ of the International Association of Allergists, and published in Basle, Switzerland. The study, made by a group of four medical directors of American industrial concerns, extended from September 1949 to early April 1950. The concerns participating were the American Telephone and Telegraph Company, Chesapeake and Potomac Telephone Company, New Jersey Bell Telephone Company, and Schering Corporation. Conclusions were that the preparation was 72.7 per cent effective in affording relief of cold symptoms.

Thus the battle goes on while many people swear by these products for complete relief of cold symptoms, while other people complain that they are ineffective, or make one feel even worse. As we have stated before, because of the great difference of opinion as to their effectivness, these preparations have definitely taken their place as any type of cold remedy and they are carving out for themselves a definite place in the cold remedy market.

As to the battle on the part of organized medicine to kill off the use of the products in self-medication, we doubt that this fight will be as successful as the fight against the sale of advertised vitamin preparations. However, we do not expect the doctors to give up easily —they never have in the past.

Truman and Ewing Sail Right On

REARMAMENT, danger, world war, or anything else is not going to stop President Truman from attempting to force down the throats of the citizens of this country his so-called Fair Deal, which includes Federal compulsory health insurance, or in other words, socialized medicine. However, we doubt very much that his health program will get to first base so long as the international crisis is as grave as it is at present, or as long as the Congress is constituted as it is with respect to party majority. However, this action on the part of the President should not fail to impress those associated with this industry as to the importance of doing everything possible now to eliminate the need for compulsory health insurance when the international crisis passes.

Federal Grants on Cortisone and ACTH

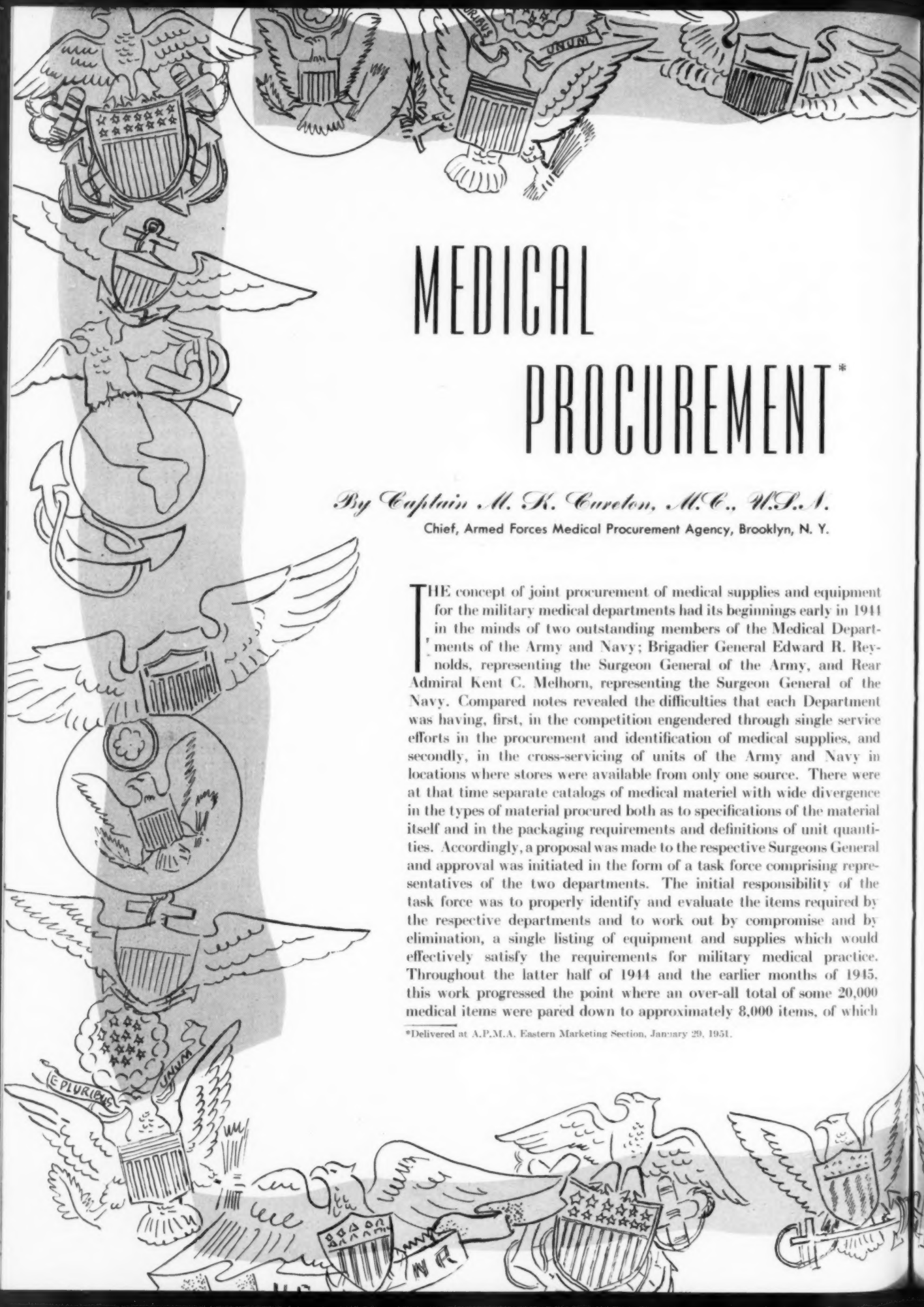
GRANTS totalling more than $2 million for ACTH and cortisone research in 17 states are being made by the Federal Security, and are to be administered by the U. S. Public Health Service. The program will include not only a study of the use of these drugs "in a large number of diseases which have always had a discouraging outlook," but also a search for possible substitutes and new methods of synthesis. The Federal grants, going into research institutions all over the country, will be aided by other funds from universities and pharmaceutical houses.

A large number of grants will be for research on rheumatic fever, while others will go for research on rheumatoid arthritis, congestive heart failure, lukemia, asthma, peptic ulcer, ulcerative colitis, goiter, and whooping cough. In terms of clinical treatment, USPH Surgeon General Dr. Leonard A. Scheele said the grants represent a vast screening program in which cortisone and ACTH will be tested in two general categories:

1. Appraisal of ACTH-cortisone treatment on those diseases where only preliminary results have been obtained up to the present, such as lukemia.

2. Attemps to consolidate gains in those diseases where treatment already has shown great promise. Examples, rheumatoid arthritis, rheumatic fever, asthma, ulcerative colitis, lupus erythematosis, and uveitis.

Approximately $500,000 has been earmarked for rheumatic fever, and an attempt will be made to find out if ACTH-cortisone treatment, which suppresses acute rheumatic fever symptoms, can prevent relapse and recurrence of the disease. A "sizable part" of the fund will go into basic research in an attempt to determine the exact key role of the adrenal glands in health and disease.

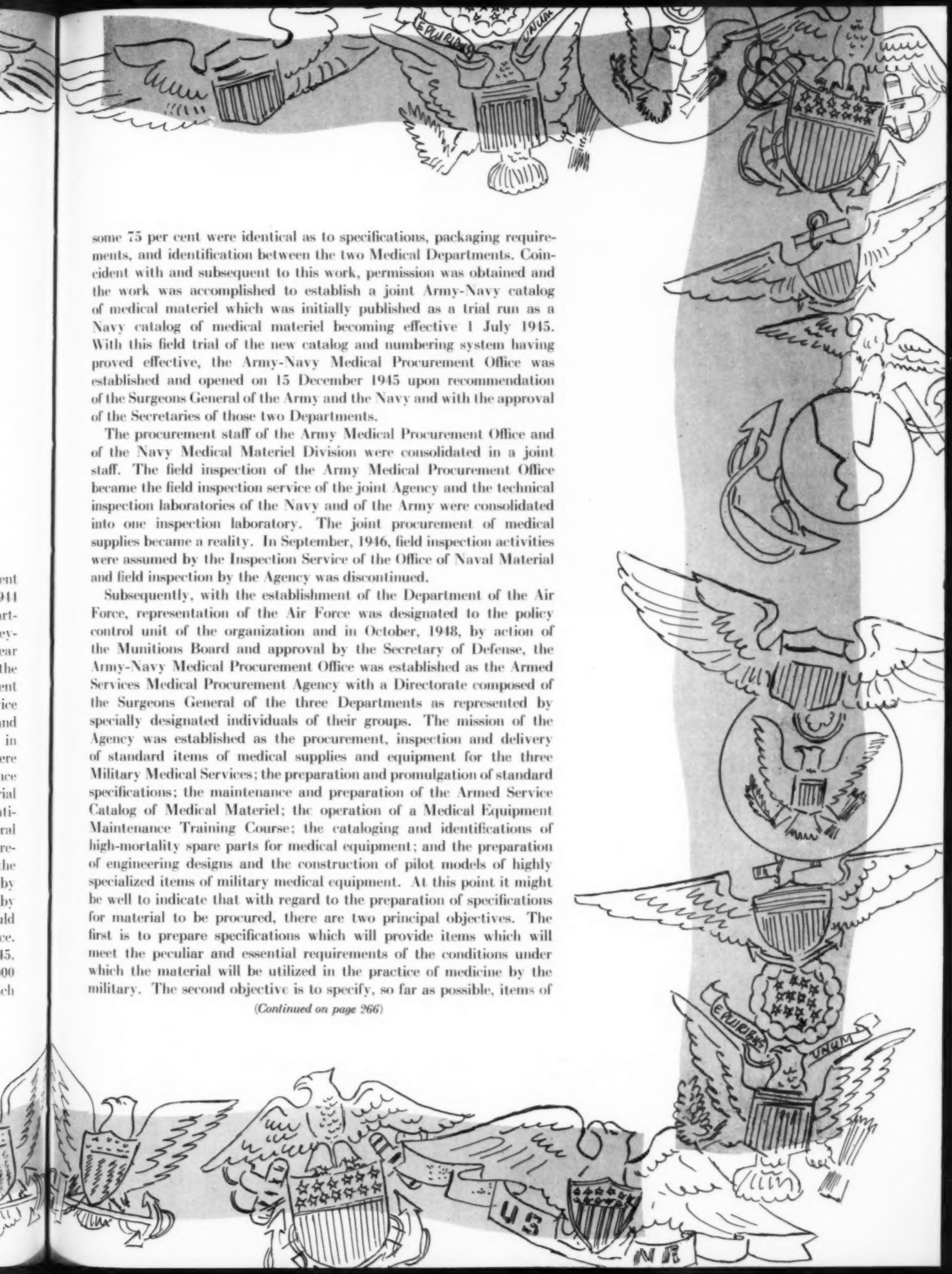


MEDICAL PROCUREMENT*

By Captain M. K. Cureton, M.C., U.S.N.
Chief, Armed Forces Medical Procurement Agency, Brooklyn, N. Y.

THE concept of joint procurement of medical supplies and equipment for the military medical departments had its beginnings early in 1941 in the minds of two outstanding members of the Medical Departments of the Army and Navy; Brigadier General Edward R. Reynolds, representing the Surgeon General of the Army, and Rear Admiral Kent C. Melhorn, representing the Surgeon General of the Navy. Compared notes revealed the difficulties that each Department was having, first, in the competition engendered through single service efforts in the procurement and identification of medical supplies, and secondly, in the cross-servicing of units of the Army and Navy in locations where stores were available from only one source. There were at that time separate catalogs of medical materiel with wide divergence in the types of material procured both as to specifications of the material itself and in the packaging requirements and definitions of unit quantities. Accordingly, a proposal was made to the respective Surgeons General and approval was initiated in the form of a task force comprising representatives of the two departments. The initial responsibility of the task force was to properly identify and evaluate the items required by the respective departments and to work out by compromise and by elimination, a single listing of equipment and supplies which would effectively satisfy the requirements for military medical practice. Throughout the latter half of 1944 and the earlier months of 1945, this work progressed the point where an over-all total of some 20,000 medical items were pared down to approximately 8,000 items, of which

*Delivered at A.P.M.A. Eastern Marketing Section, January 29, 1951.



some 75 per cent were identical as to specifications, packaging requirements, and identification between the two Medical Departments. Coincident with and subsequent to this work, permission was obtained and the work was accomplished to establish a joint Army-Navy catalog of medical materiel which was initially published as a trial run as a Navy catalog of medical materiel becoming effective 1 July 1945. With this field trial of the new catalog and numbering system having proved effective, the Army-Navy Medical Procurement Office was established and opened on 15 December 1945 upon recommendation of the Surgeons General of the Army and the Navy and with the approval of the Secretaries of those two Departments.

The procurement staff of the Army Medical Procurement Office and of the Navy Medical Materiel Division were consolidated in a joint staff. The field inspection of the Army Medical Procurement Office became the field inspection service of the joint Agency and the technical inspection laboratories of the Navy and of the Army were consolidated into one inspection laboratory. The joint procurement of medical supplies became a reality. In September, 1946, field inspection activities were assumed by the Inspection Service of the Office of Naval Material and field inspection by the Agency was discontinued.

Subsequently, with the establishment of the Department of the Air Force, representation of the Air Force was designated to the policy control unit of the organization and in October, 1948, by action of the Munitions Board and approval by the Secretary of Defense, the Army-Navy Medical Procurement Office was established as the Armed Services Medical Procurement Agency with a Directorate composed of the Surgeons General of the three Departments as represented by specially designated individuals of their groups. The mission of the Agency was established as the procurement, inspection and delivery of standard items of medical supplies and equipment for the three Military Medical Services; the preparation and promulgation of standard specifications; the maintenance and preparation of the Armed Service Catalog of Medical Materiel; the operation of a Medical Equipment Maintenance Training Course; the cataloging and identifications of high-mortality spare parts for medical equipment; and the preparation of engineering designs and the construction of pilot models of highly specialized items of military medical equipment. At this point it might be well to indicate that with regard to the preparation of specifications for material to be procured, there are two principal objectives. The first is to prepare specifications which will provide items which will meet the peculiar and essential requirements of the conditions under which the material will be utilized in the practice of medicine by the military. The second objective is to specify, so far as possible, items of

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COSMETICS AND THE DRUGGIST

By Frazer V. Sinclair

IN OUR January issue, in the article, "Crossroads for the Druggist," we pointed out that somewhere near 4,000 druggists, out of a total of 54,000, had developed a degree of specialization in cosmetics and perfumes which removed them almost entirely from the messy, competitive battleground of the self-service grocery super-market.

We also stated here that the large number of cosmetic and perfume manufacturers who use selected distribution, whose products make community specialization possible, whose products guarantee a franchise which provides a separation from super-market, mass or vending machine competition, believe and would support several thousand additional capable druggists in such specialization, providing of course that these druggists would meet the requirements of selected distribution in store arrangement, store cleanliness, stock selection and trained, competent personal selling as these present qualified 4,000 are now doing.

It was also stated in this article that among the several fields of specialization open to the druggist, who would avoid mass market competition and who would summon all the resources of his professional reputation and chemical training, cosmetics and perfumes offer preferred retail opportunities. To support this statement, we quoted the head of one of America's most important and successful department stores who

said recently in a speech that cosmetics and perfumes are the second most profitable department in his store.

What facts are there which will allow a prudent, careful retailer, who is examining several possible fields of specializaton, to appraise perfumes and cosmetics for preferred opportunities in profits, business expansion and business stability? Why give preference to cosmetics and perfumes?

The answer must be a combination of retail arithmetic, which leaves little room for argument, of experience, which is on the record for those who wish to see and some intangibles, which every man must appraise for himself.

A specialized department for perfumes and cosmetics which would have the advantages we have already detailed, that is profit-wise, security from self-service in any form and from mass market operations, opportunity to build a self-owned clientele, must consist basically and primarily of those cosmetics and perfumes sold in selected distribution and offering to some degree a retail franchise.

The existence of a retail franchise for so many, and so wide a variety of nationally famous perfumes and cosmetics is, therefore, the first and one of the most important factors in the preferential advantages of these products for the retailer. No other producing industry offers the retailer an equal opportunity for a specialized department in scope, variety and diversity of products where he can so confidently devote his time, skill and energy to building a profitable clientele.

There is an historical record of stability and growth in the sale of perfumes and cosmetics that gives to these products a preferential retail status. This has been a steadily expanding industry in this country. Participation in fashion, in an adept use of color, in brilliant leadership in packaging has greatly expanded its horizon.

These products, over their entire range, are more nearly depression proof than any other retail product. Some few years ago, in a notable survey where a large group of women were shown a list of 60 retail commodities and were asked to eliminate them one by one, as she would if family income dropped, three cosmetic products were among the last five commodities retained.

In a comprehensive study of department store sales "Behavior of Consumption in Business Depression," the Harvard Graduate School of Business Administration found that only one minor department, Maids' and Nurses' Uniforms, resisted the grave depression of 1930 more successfully than perfumes and cosmetics. Compared to all other departments in department stores, perfumes and cosmetics were the star performers.

We may not be thinking of depression or falling consumption now, but the prudent retailer, who is planning ahead and perhaps changing to some extent the character and personality of his store, would not want to ignore these advantages in assessing the value of perfumes and cosmetics for retail preference.

Perfumes and cosmetics are today in almost universal usage in any American community. This means, of course, traffic potential, availability of present clientele, almost no waste in advertising and store promotions. A study of many recent surveys shows the high percentage of women who use cosmetics; for instance: Ninety-two per cent use lipstick; 88 per cent use face powder; 72 per cent use cleansing cream; 74 per cent use a hand cream or lotion; 76 per cent use shampoo; 72 per cent use nail enamel; 80 per cent use deodorant; 68 per cent use a fragrance.

Add to this nearly universal market among women the expanding usage by men of various shave accessories, toiletries, such as colognes and deodorants, and the prudent retailer must conclude that in perfumes and cosmetics ample opportunity exists in his own community to apply energetic, specialized sales ability.

In retail arithmetic, perfumes and colognes show up as decidedly preferred products. The Comptrollers Congress, whose annual report is so much the guide book in department store operation, makes this clear.

For instance, the transactions per square foot for these products are 77 as compared to 19.4 for the total store. Dollar sales for the year per square foot are 142 as compared to 77.70 for the total store. Transaction per sales person, usually only surpassed by notions and novelties, are 12,170 as compared to 7,490 for the whole store.

Perfumes and cosmetics of the franchise or selected distribution class have a relatively high unit value and a relatively high mark-up. They are ideal products for personal selling, as a clear separation from the turmoil of self-service.

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BETTMANN ARCHIVE

FLAVOR PROBLEMS IN PHARMACEUTICALS*

By Dr. E. M. Hamann

Fritzsche Brothers, Inc.

FLAVOR problems are older than some of our hills and surer even than taxes. Their long association with pharmaceuticals can be read in early prescriptions and traced through old compendia. To be sure, the purpose of flavoring adjuncts in medicines may have altered from one designed to be as efficacious as its nauseating flavor to one as soothing as its delightful flavor. The problems resolve themselves into food flavoring problems. It has been said,[1] "It is interesting to make comparisons between the pharmaceutical and food industries because a study of the problems indicates both close similarities and wide divergences. Many efforts have been made to define clearly what a food is and what a drug is. Difficulty in this borderline is to be expected." Vitamins are products in which this classification is indefinite. In many instances you have arrived at a point where you may be food manufacturers whose primary concern is to put out a palatable product, and a food, no matter how nourishing it may be, will not be consumed unless palatable or only under the compulsion of its hoped-for benefits.

The sensation of flavor, the mechanism of which is still unsolved, has attracted increasing attention in

late years and there is evidence in support of several theories, such as the chemical theory, the vibrational theory as applied to molecules of the odorous substances or of the observer in the nature of high frequency radiations. It is not my intention or purpose to discuss these many theories which may be found in the literature on flavor. Lauffer[2] has given an excellent review of these theories on odor.

With the increasing importance of flavor has come a whole new field in the science of flavor evaluation which is rapidly acquiring a language comprehended only by the initiated and almost as if designed to mystify as is evidenced in psychological and educational fields. One no longer speaks of limits of taste perception but of "hedonic thresholds." A taste jury has graduated to the title "organoleptic panel." Sensations are pictured by numbers or geometric designs. The probability of a correct choice is predicted mathematically. Some of you may have attained the proficiency of scoring samples by "the balanced incomplete block design." These developments could be charitably described as growing pains, but the flavor panel judgment is probably in most instances superior to the opinion of the chairman of the board. The utility of the many evaluation procedures as comparative procedures is not doubted; however, they will not insure the product's flavor acceptance. Your particular methods of flavor evaluation are useful to yourself. You may try to convince others of their value. My suggestion is to stop there. These methods may have inherent misconceptions. In the selection of a flavor by the panel method, a flavor which will appeal to the general consumer, are we not making our choice a product with the least objectionable flavor rather than one with the best flavor and will this not lead to mediocrity or loss of character?

The division of flavor into the two sensations of odor and taste is of singular significance to the pharmaceutical industry in that most of the problems appear to be concerned with masking of disagreeable or undesirable tastes of salt, sour and bitter. This is more difficult than the masking of an odor. The choice of vehicle and flavor was formerly the choice of the individual pharmacist who obtained his information from the U. S. Pharmacopoeia, the National Formulary or other compendia. It is now devolved upon the chemist to select a satisfactory flavor for a manufactured product, but there are indications that the old recommended and tested flavors are still the most popular either by choice or by habit.

I should like to review these flavoring vehicles and to discuss their uses. To cite only the most familiar, they are: Aromatic Elixir USP, Orange Flower Syrup NF, Aromatic Eriodictyon Syrup NF, Cinnamon Syrup NF, Glycyrrhiza Syrup USP, Raspberry Syrup USP, Citric Acid Syrup USP, Cherry Syrup USP, Cacao Syrup USP, Compound Sarsaparilla Syrup USP, Tolu Balsam Syrup USP, Acacia Syrup USP and Sherry and Port wines.

*Delivered before A.P.M.A. Eastern Scientific Section, January 30, 1951.

Wright[3] and Perdum[4] have determined the comparative efficiencies of flavoring agents for ammonium chloride and quinine. The results of Wright's and Perdum's work are in general agreement although the methods of evaluation were different. A distinction was made between those which gave the best coverage and those which were most palatable. For coverage of ammonium chloride in order of their decreasing efficiency were: Glycyrrhiza, Raspberry, Citric Acid, Orange, Aromatic Eriodictyon, Cherry, Cacao, Cinnamon and Sarsaparilla; for palatability,—Cinnamon, Orange, Sarsaparilla, Eriodictyon, Citric Acid, Cherry, Cacao and Raspberry. For the coverage of quinine in order of decreasing efficiency were: Cacao, Glycyrrhiza, Eriodictyon, Sarsaparilla, Raspberry and Cherry; for palatability,—Cacao, Raspberry, Eriodictyon, Cherry, Cinnamon, Sarsaparilla—and last Glycyrrhiza. These materials are cited here not as flavoring suggestions but to call attention to the fact that a choice must be made between a flavoring vehicle which will give the best coverage and one which will be the most palatable. They are not necessarily identical. You will note that while Cinnamon was selected as the most palatable flavor with ammonium chloride, it was low in masking ability.

There have been other workers in this field of flavor evaluation of U. S. Pharmacopoeia and National Formulary flavoring vehicles. R. W. Nacca[5] suggested Syrup of Glycyrrhiza, Compound Elizir Almond, Syrup, of Acacia and Sarsaparilla for masking salty materials and Syrup Eriodictyon, Raspberry, Acacia and Cacao for bitter alkaloids. Fantus[6] describes Syrup of Glycyrrhiza as an admirable vehicle for salines because of colloidality and sweetness (the immediate sweetness of sugar plus lingering sweetness of glycyrrhiza). Syrup of Acacia as a colloidal disguising agent with sodium benzoate for preservation and vanilla for flavoring was found effective for a burning taste such as urea. Here and, as pointed out, elsewhere[7] it is important to note the role of consistency of a vehicle or its tactual characteristics as determined by texture or viscosity. Thus it is possible to improve the palatability or coverage of a flavor by altering its consistency apart from any change in the active flavor constituents. Purdum states further that fruit syrups are favored for sour tastes; Syrup of Cinnamon for sodium salicylate or iron and ammonium chloride; Eriodictyon for quinine, codeine phosphate, strychnine sulfate, alkaloids and amidopyrine.

Thus far we have described uses for official flavoring vehicles which despite a single name in many cases represent complex flavor mixtures. Aromatic Eriodictyon Syrup NF is composed of a fluid extact of eriodictyon herb plus tincture cardamom and oils of sassafras, lemon and clove, with sugar added. Syrup of Glycyrrhiza USP is composed of fluid extract licorice plus oils of anise and fennel. Cacao Syrup USP is composed of cacao, tincture of vanilla, gelatin, sucrose and water. Compound Sarsaparilla Syrup USP is composed

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THE STORY OF TERRAMYCIN*

By Fred J. Stock
Vice President of Chas. Pfizer & Co.

THE speed with which Terramycin was developed is indicative of the advances made in the production and development of modern antibiotics since the last war. However, the story I will tell concerns the distribution of Terramycin. I will attempt to tell this story as simply and directly as possible. First, it will be helpful to refer briefly to the background of Terramcyin. While the Chas. Pfizer and Co. has been an important factor in the chemical and drug industry for over a century, it was known, until quite recently, principally to trade groups. This is quite understandable in view of the fact that the company during these 100 years functioned essentially as a bulk supplier to the chemical, pharmaceutical and food manufacturing industries with little or no contact with the actual consumer.

Pfizer's first real experience in the manufacture of a consumer item occurred with the participation of the company in the wartime penicillin program starting in 1943. By virtue of its prior experience in fermentation probably there was no firm in the world better equipped for this pioneer role. Thus, not only was Pfizer the first company to deliver penicillin in significant quantities to the military but it also remained one of the largest single factors in the manufacture of penicillin and later streptomycin.

Despite the fact that Pfizer manufactured and, in many cases, packaged the products for its customers during the war and post-war period, it retained its traditional policy as a supplier of fine and medicinal chemicals to the chemical, food and pharmaceutical industries. The maintenance of this 100-year-old distribution policy posed no particular problem as long as Pfizer remained in a sellers' market. However, it was not long before a number of the large pharmaceutical companies undertook to manufacture their own antibiotics requirements. This additional production caused a rapid shift from a sellers' to buyers' market.

The distribution problem was further accentuated by the announcement by Lederle and Parke-Davis of the discovery of two radically different antibiotics (Aureomycin and Chloromycetin), known to the trade as wide-spectrum antibiotics because of their exceptional range of usefulness.

Shortly after news was received of the discovery of the new wide-spectrum antibiotics, Mr. McKeen then executive V.P., now President and Chairman of the Board of Directors at Pfizer, called our research people into his office. Mr. McKeen stated quite bluntly that Pfizer's leadership in the antibiotic industry must be maintained; that there remained ample room in this market for the development of new and improved products.

The next few months were very busy ones for our research people. The entire research operation was streamlined, new antibiotics screening procedures introduced. Many months and 100,000 soil samples later Terramycin was discovered.

With its century of production experience, with its decades of fermentation know-how and with all its knowledge as a pioneer producer of antibiotics, Pfizer had few qualms insofar as production was concerned. However, it was quite apparent that the sales operation would have to start from scratch. Beginning in 1949, the first important step was undertaken in this direction, the initiation of a market research program. Thus, Pfizer began to study the specialized distribution methods and procedures employed by the ethical drug industry. Pfizer determined which firms were making the greatest progress in the sale of antibiotics. Pfizer ascertained which product types were making the greatest advances. Pfizer analyzed the various factors making up an ethical drug operation from the viewpoint of the manufacturers, the hospitals, the drug trade and the medical profession. After all this background information had been gathered, management undertook a careful reappraisal of the firm's 100 year old sales policies.

Meanwhile the development of Terramycin was proceeding. From the very beginning, Terramycin gave every evidence of being a most unusual drug—quick acting, highly effective, and remarkably free from side reactions. Consequently every possible effort was made to accelerate the development of the product. Some indication of the speed with which Terramycin was developed may be obtained from the fact that penicillin was 13 years in the developmental stage, the wide-spectrum antibiotics about two years; but Terramycin, only a matter of months.

By January 1950, we knew that Terramycin was the antibiotic we had been looking for. In fact, this was one of the rare cases when a product exceeds original anticipation. The accelerated tempo of developmental work on Terramycin suddenly found us way ahead of schedule. Production was already rolling.

Thus, almost before we realized it we were up against the problem of how Terramycin should be sold. The big question was should Pfizer, following its 100-year-old tradition as a supplier of fine chemicals and pharmaceuticals to the drug and chemical industry, distribute Terramycin in the same manner as penicillin and streptomycin; or should Pfizer embark on an entirely new venture and attempt to sell the product in final packaged form under its own label to the drug trade? This proved to be an exceedingly difficult problem. We knew we had an extraordinary product. We knew that initial supplies of the product would be limited. We knew that Terramycin would have to be developed by extensive clinical evaluation. We knew from our continuing antibiotics market studies that the companies making the greatest long-range progress in the antibiotics industry had been those possessing the best distribution set up. We knew that our position in penicillin and streptomycin lacked security. We knew that our chemical sales staff, trained in selling bulk chemicals could not do a specialized professional selling job.

On February 9, 1950, the final decision was made. Our Board of Directors voted to undertake the direct sale of Terramycin. As Vice President in charge of Sales, I was given the responsibility of setting up a new direct sales organization. I was given three months to "show what you can do."

Bear in mind that at the time, for a direct sales operation Pfizer had no sales manager, no advertising director, no advertising agency, no office staff, no medical detailmen and no real experience in the direct distribution of an ethical drug item. On the asset side of the ledger we had an exceptional product, an aggressive hard hitting management group and a seasoned production team. In addition, we had Pfizer's reputation as one of the original pioneers and leading producers in the antibiotic industry, both factors which, if intelligently used could provide valuable background material for the introduction of Terramycin. The target date for Terramycin was set for late March or early April. Thus, we had from six to eight weeks to develop an ethical sales operation.

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*Presented before the Sales Executives Club of N. Y. on January 9, 1951.

DEVELOPMENTS IN DENTIFRICES

By Milton A. Lesser

THE last few years have seen a tremendous upsurge of interest in methods for preventing dental caries. It has been said[1] that today dental research holds the same position that medical research held fifty years ago. However, with the aid of new drugs, new materials and new techniques, dentistry, is moving forward swifty. Scientists, public health workers and the populations of entire towns and cities are participating in the various experiments aiming at the solution of the dental caries problem.

Of course the general public also has a tremendous interest in all this work, particularly the phases devoted to the development of better dentifrices and other materials and methods for preventing tooth decay. This interest is well justified in view of the fact that dental caries or tooth decay is called[2] the most common disease of civilized mankind. Indeed, it is said that dental caries affects 96 per cent of Americans by the time they are five years old.

Progress in the development of better dentifrices is dependent, to a large extent, on an understanding of the factors or processes leading to the appearance of dental caries. While there are those[3] who hold other views, the majority of workers accept the so-called acid theory, upon which much of the current research

is based. According to this view, which was concisely defined at the 1947 conference[4] held at the University of Michigan, "Dental caries is a disease of the calcified tissues of the teeth. It is caused by the acids resulting from the action of microorganisms on carbohydrates, is characterized by a decalcification of the inorganic portion and is accompanied or followed by a disintegration of the organic substance of the tooth. The lesions of the disease predominantly occur in particular regions of the mouth, and their type is determined by the morphological nature of the tissues in which they appear."

Although other organisms may play a part, the lactobacilli are the only microorganisms which have been found to show a significant increase in numbers with the initiation of dental caries. As pointed out by Ray,[5] the *Lactobacillus acidophilus* is now established as the oral organism responsible for the production of harmful acid, and saliva counts of this organism are used as an index of caries activity.

Of course, a number of other elements enter the dental caries picture.[4-6] Among them are such factors as natural immunity and resistance, diet, mechanical considerations and oral hygiene. It is the last phase of caries prevention which forms the basis of this review. It should be stressed, however, that an all-over consideration of oral hygiene with respect to caries prevention covers not only the role of dentifrices but also the most appropriate time for wielding the toothbrush.

Many dentists have long believed that the teeth should be brushed after every meal with a suitable dentifrice. This view is reflected in the recommendations appearing in a well-sponsored carefully prepared booklet[2] on dental care. Here it is stated that, "The *best* time to brush teeth is right after eating and especially before bedtime and on arising."

These opinions are being strongly substantiated by carefully conducted studies. At Yale University for example, Haggard and Greenberg[7] have presented evidence concerning the importance of using a toothbrush and mouth rinse after any meal. Speaking as physiologists rather than as dentists, they point out that trying to avoid tooth decay by avoiding sugar is impractical because almost all starch foods produce sugar in the mouth and the microorganisms involved in caries production make no distinction as to the source of sugar. They take the view if sugar is a cause of tooth decay, regardless of the mechanism by which it produces its results, the magnitude of its effects will be related to the concentration of sugar in the mouth and especially to the length of time it remains there.

In their experiments, it was found that a caramel candy and orange juice both brought the sugar content of the saliva to the high level of 800 mg. per 100cc. However, 20 minutes after ingestion of the orange juice there was almost no sugar left in the saliva, whereas 45 minutes after eating the candy there was still considerable sugar in the saliva. Significant was the observation that if the teeth and mouth were thoroughly brushed and washed after eating the caramel, the sugar concentration in the saliva was immediately brought to the zero base line.

Particularly important and indicative is the work done by Fosdick[8] with the cooperation of a number of of other investigators. Studies were made on 946 students at six colleges. During the two-year test period, the 423 students serving as the control group followed the ordinary routine, which generally consisted of brushing the teeth morning and night. The 523 students comprising the test group were instructed to brush their teeth thoroughly within ten minutes after each ingestion of foods or sweets, and when brushing was impossible to rinse the mouth thoroughly with water. They were told to brush their teeth with an accepted technique and to rinse the dentifrice from the mouth immediately after brushing. The dentifrice, a neutral tooth paste, consisted of dicalcuim phosphate as the abrasive, a sulfated glyceride of coconut oil fatty acids as the detergent, plus glycerine, gums, flavor and water.

At the end of one year's test, the experimental group developed an average of only 0.8 cavities per person as against 2.2. new carious surfaces for those in the control group. This represented a 63 per cent reduction in caries activity for the after-meal tooth brushers as compared with those using the general routine. At the end of two years it was evident that "the reduction in carious activity by purely oral hygiene procedures is real and that actual reduction is probably in the neighborhood of between 50 and 60 per cent."

On the bases of this extensive data it was concluded that brushing the teeth immediately after eating will materially reduce the number of cavities, not just in the least susceptible, but also in those persons who would otherwise develop many cavities. It is noted that those individuals who are only mildly caries-active develop no caries and the very active ones develop only a few lesions.

These findings will, of course, markedly influence thinking with respect to the formulation and use of dentifrices. As remarked by Fosdick[8], a great deal

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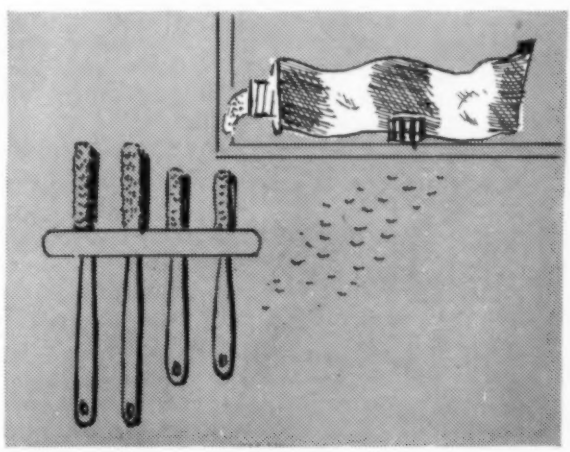

BETTMANN ARCHIVE

ROUGES

By Harry Hilfer

THE history of the use of rouges to add a florid tint to the face has a well-known history, which need not be further elaborated upon here. Certainly as long as there have been records of customs of past civilizations, there have been evidences of the use of rouge. Strangely enough it is not nearly as important a make-up item to the manufacturers as is the lipstick, since its sales are not nearly as great, but this has little correlation with its use since it is fairly universal. The fact is that a rouge package lasts longer than lipstick because it is used in smaller applications and less frequently than in the lipstick. Its use as far as women are concerned is therefore of almost equal importance.

The function of the range has now evolved into an artistic heightening of color of the cheeks plus a proper accenting by means of this coloration of those features which by this accentuation improve the appearance of the woman's face. Proper application of the rouge is therefore as important as is the color heightening process itself. There are a few simple rules regarding proper application of the rouge which are dependent on the individual woman's facial configurations and complexion. A discussion of these methods is outside the scope of this article, but in order for the rouge to be applied properly its consistency should be such that it would lend itself to easy application.

There are two types of rouges in popular use at the present time, the cream rouge

and the cake. In both these products the primary qualifications must be ease of application. Other properties should be strength of the cake against breakage and proper dispersion of the color. Cake rouges require more processing than do cream rouges and will therefore be discussed first. In its formulation lakes and other organic pigments are used generally to impart the color. A certain amount of opacity is also introduced by the addition of either titanium oxide or zinc oxide and the remainder of the product is either talc or kaolin or both in addition to a binder and essential oils. The ratio of these factors to each other is not fixed as they are dependent on the physical pressure the cake is subjected to in pressing. The type of press used varies, the most common being the foot press, but automatic presses where the pans are filled and the cake pressed automatically are also in use. In addition, these presses are motivated both mechanically and by air pressure.

If at all possible the air press should be the choice of the manufacturer, since the pressure on the cake induced by this type of equipment is independent of variations in the amount of powder introduced into the pans. The air press die is forced down upon the powder in pan until a predetermined pressure is reached at which point the air is automatically cut off. To achieve the same result in a mechanical press, the fill in the pan must be exactly the same and a variation of 1 per cent in the fill would cause the hardness or softness to increase many times in proportion. The most satisfactory method of pressing appears to be by gentle pressure which gradually increases, thus forcing the air between the powder particles out of the mass slowly. A hammer like blow by the die would cause too sudden a displacement and much of the powder would be forced out of the pan by the fast rush of air. Dies themselves almost uninversally used to be covered with a rubber dam to prevent adherence of powder to the dam, but the need of the dam has largely been obviated by a high polish administered to the die itself. There are no crevices to which the powder could adhere in a highly polished surface and therefore there will be no adhesions.

In the actual formulation, ingredients in normal use have varying adherent properties of their own. The concentration and types used would therefore have a bearing on the amount of binder needed. Kaolin for example if used in a high enough concentration is capable of being used without a binder, but the rouge may suffer as a result because since kaolin readily absorbs moisture with trituration it may cause the applied rouge film to go on spotty. Binders are therefore still in fairly common use in conjunction with materials which are not as likely to cause a spotting. The number of binders possible are fairly great. Tragacanth used to be the standard at one time, but with the improvement in grinding methods, synthetic gums such as methyl cellulose and sodium carboxy methyl cellulose are also used. In a good many cases the classic water soluble gum has been replaced with mineral oil, isopropyl myristate, lanolin and other water insoluble substances which also cause the powder particles to adhere to each other, and the use of these materials would certainly cause less spotting on application because of the presence of moisture.

Proper grinding is the most important part of the processing, and with the introduction of more efficient grinding equipment the quality of the rouges have also been bettered. The classic method of manufacture in vogue some twenty years go consisted of mixing the dried powders then adding a tragacanth solution until a thick paste was formed, drying the paste in an oven and then grinding to an impalpable powder in a ball mill. This procedure was time consuming and expensive since only a limited amount could be processed in a ball mill at any given time, but even more

(Continued on page 246)

F.D.A. ANSWERS IT

COSMETICS take up less than 2 per cent of the total inspection budget of the Food and Drug Administration. Nevertheless, and notwithstanding such meager attention, both the industry and the U. S. public seem well aware of FDA's jurisdiction in this field. What they are not so clear on, however, is the *nature and extent* of FDA's responsibility for safety and truthful labeling of cosmetic products.

This is shown by FDA's rather large and interesting correspondence regarding cosmetics. If letters and 'phone calls were the criterion, the amount of field time given to cosmetics might seem disproportionately small. In fact, FDA gets more mail and queries about this product group than it does on many others which are much more of a problem, enforcementwise.

What does this mail reveal? First of all, it shows that the public, including the medical profession, has a tendency to regard FDA as a sort of consumer information bureau, which of course it is not. Consumer mail falls into two main classes: (1) Letters which ask FDA how it "rates" various brands of cosmetics, and (2) letters asking if specific cosmetic products are "safe."

Like any other government agency or business firm, FDA answers its mail. It is taken for granted that any citizen and taxpayer is entitled to a prompt, courteous and, if possible, informative reply from his civil servants, no matter how odd or unusual the query may seem. But there are certain limitations which FDA carefully observes in answering its mail. In general, these limitations are indicated by the scope of the job which Congress assigned when it passed the Federal Food, Drug and Cosmetic Act. This can be illustrated by reference to the kind of replies given to different types of letters.

According to Dr. Horatio Wales, the FDA official who answers most of the cosmetic mail at Washington headquarters, the largest single classification of letters crossing his desk is from women asking for "product ratings." In most cases these women seem to have acquired a smattering of knowledge from various consumer information sources, from which they conclude that FDA can give them specific advice regarding which product to buy. This of course is way outside FDA's statutory functions, and such queries are always answered to that effect. The only way FDA "rates" cosmetics is on whether or not they comply with the law, and if they do not it announces this "rating" in the form of a legal proceeding.

Questions as to whether this or that product is "safe" make up the next largest group. These include queries from the medical profession or from patients whose doctors have suggested that they "ask the FDA." The reply to such letters usually

ITS COSMETIC MAIL*

By Wallace F. Janssen
Managing Editor F-D-C Reports

quotes the sections of the F-D-C Act dealing with safety of drugs and cosmetics. It is pointed out that if a product is not safe it is the obligation of the Administration to proceed against it. And if a legal proceeding has been started, this fact may be noted in replying to any letter inquiring about the product. Conversely, the absence of a legal proceeding is frequently noted.

If an official analysis has been made, general information in regard to composition may be given, with its indications as to safety. But if there has been no analysis, and FDA has no reason to suspect the product, it may tell the consumer what products of this type usually contain and add that there is no reason to suspect their safety.

There is a common but erroneous public impression that drug and cosmetic products cannot be marketed without the approval of the FDA. Letters frequently ask if the government has "approved" this or that product. Manufacturers may be interested to know that there is actually a way such approval can be obtained: Market an illegal product, let FDA seize it, file a claim and admit the allegations in the libel, then take the goods out under bond and relabel under FDA supervision! Such a label actually would be "approved" (by a Federal Judge) but there is no other way to get government approval except in the negative sense of not objecting to a submitted product or label.

Questions Concerning Safety and Efficacy

Sometimes queries are received asking about the safety or efficacy of products which FDA considers to belong in a borderline classification: i.e., it takes a dim view of the claims, etc., but doesn't have enough scientific evidence to take them into court. Hormone creams have long been the No. 1 illustration of this type of product. Answering a query on hormone creams, FDA would probably enclose copies of the F-D-C Act and its general circular on drug labeling. After introductory remarks, the letter would read something like this:

> It is not possible to state with certainty what will be the effect of small amounts of estrogenic substances applied to the skin in a cream base. Some physicians have conducted investigations and have reported that creams containing estrogens may bring about changes in the texture of the skin which tend to restore a youthful appearance. Other investigators have reported diametrically opposite conclusions. These differences have been explained on the basis of individual variations and on the quantity of the estrogen used. Frankly, we are very skeptical

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*Delivered before the Scientific Section of the Toilet Goods Association, December 6, 1950.

SALES PROBLEMS AND PRODUCTION*

By Vincent A. Burgher

VICE PRESIDENT, CIBA PHARMACEUTICAL PRODUCTS, INC.
SUMMIT, N. J.

WITHIN any organization the closest of collaboration is necessary between the Production and the Sales Departments. Also, Purchasing must be a member of our closely knit and cooperative unit. Remove any one of these three from the group—Production, Sales or Purchasing, or let coordination and cooperation be lacking, and the result will be an internal company mess that the U.N. would gladly side step.

Without any doubt whatsoever, the two most difficult assignments which confront a sales group are the compilation of a Sales Estimate for the coming year, and the achievement of reaching that established estimate in dollars and in package turnover. I submit to you that the Sales Estimate is production's initial working tool.

I am quite confident that some production men raise an eyebrow at the mention of Sales Estimate, and that some of them are somewhat skeptical of the accuracy of submitted tabulations as against ultimate actuals. If so, then let me point out that it is axiomatic that no organization such as ours can be properly operated without such an Estimate of Sales. Approved budgetary allocations for all departments within the organization—research activities, anticipated profits, etc. are all predicated on the accuracy of the submitted estimated turnover. This being the case, if the Sales

*Presented at the American Pharmaceutical Manufacturers' Association, Production Section, January 31, 1951.

Estimate is of no value in production planning, then it is of relatively little value to Management in company planning.

A Sales Estimate should be made available to Production covering, not only calculated total dollar intake, but also the anticipated unit package turnover per month of each individual product. In the majority of instances, through the utilization of available and determinable statistics, Sales Estimates are uncannily accurate. This is particularly true of older products in the line on which records of sales trends are established.

So I say to Production in all sincerity—"Don't sell the Sales Estimate short." Use it by all means. Production may keep its own check list on submitted Sales Estimates as a guard against typographical or machine errors, and for comparisons against exceptionally low or high estimates. Such card compilations should, I believe, not require over two hours recording time per month.

Availability of stocks with protective minimums is understandably of major concern to the Sales Department. These minimums on branch and home depot stock shelves are maintained in accordance with determined product turnover. In normal times, a company stocks on minimums and also buys basic supplies on minimums. These minimums obviously should be raised as Purchasing reports an increased time lag between order placement and deliveries, or when transportation delays are anticipated.

Here is one problem which, without explanation, may be confusing. Why is it that on some occasions when both the Sales Department and the Advertising Department simultaneously institute a sampling campaign in behalf of a certain product, Production is requested to prepare a different size sample package for each campaign? Time studies would disclose that a production run of one size sample would, in most instances, be more economical than individual runs of two different sizes.

In explanation, sampling obviously is geared to the particular objectives which the Sales Department and the Advertising Department desire to achieve, and decisions as to sample sizes to be used are reached following consultations between those two departments. In some instances, dictated by product and planned promotion, it is advantageous for Advertising to utilize multiple units of small size packages, with a resulting lowering of monetary expenditures for mailing cartons and for postage.

While the use of a small unit package dovetails in with plans of the Advertising Department, such may not be the case for the Sales group in planning detailing activities. For promotion, through the medium of the field representative, a larger unit sample may be indicated, consequently, requests are submitted to Production for two sample runs.

Controls should be maintained in a Sales Department to assure that Production receives in one order, total sample and stock needs for any planned promotional operation.

Complaints registered by customers relative to package or product are channeled originally through the Sales Department and certainly warrant concern in some instances. Those pertinent to Production should be relayed promptly and conferences held if indicated.

The Sales Department maintains a continual check on the turnover and profit picture of each specialty in the line. As a result, recommendations to Management for deletion of a product or package, are at times submitted. The sales personnel invites an additional problem if Production has not been advised, and a Production run on the product scheduled for deletion has just been completed.

Occasionally, Production will receive a request from the Sales Department to place an identifying mark on all merchandise on branch and home depot stock shelves. This move is generally associated with a price change which will be announced to the trade. In such cases, the information relative to the contemplated price adjustment must be submitted to Production sufficiently on advance to allow package marking on the date the price change becomes effective.

When the statement is made that over 50 percent of the major prescription items being prescribed today did not exist a decade ago, it substantiates most emphatically the often spoken truism that new products are the arterial blood of any pharmaceutical organization.

A certain percentage of profits are reinvested in Research and from time to time, clinically proven products such as Pyribenzamine, the Mycins and Cortisone are added to the therapeutic armamentarium of the medical profession.

With new specialties, particularly at the time of introduction and during initial sales phases, we must, of necessity, differ from norm in the Sales Department and in the Production Department.

Sales is particularly anxious to market the new specialty with a minimum of delay, to favorably affect the sales picture and thereby increase profit returns to the company.

Advertising likewise is "champing at the bit" to publicize the forthcoming introduction to the medical and allied professions.

(Continued on page 265)

Nearly all **leading manufacturers** of injectables

seal their products with...

ALCOA
STERICAPS
FORMERLY SOLD AS ALSECO SEALS

because ***Alcoa Stericaps*** give them...

A TAMPERPROOF SEAL
the outer tear cap immediately reveals tampering

ASSURANCE OF STERILITY
this cover cap guards against superficial contamination after opening

LEAK PROOF SEAL
this inner ferrule seals the contents securely—keeps out everything but the needle.

This three-way protection assures sterility until the last cc is used. Write for your free copy of our catalog.

ALUMINUM COMPANY OF AMERICA • 1702B GULF BUILDING • PITTSBURGH 19, PENNA.

PACKAGING AND SELLING

WHY CELLOPHANE?

The government has finally brought the E. I. du Pont de Nemours & Co., Inc. into court in a suit filed almost four years ago, which charges that du Pont conspired to establish a monopoly on cellophane. These charges are denied by the company.

As in the Atlantic and Pacific case, the government seems to be so obsessed with fanatical ideas of monopoly that they are electing to bring to court the very companies which have, in general public opinion, most notably contributed to social progress and social economies.

Even a child in grammar school would be puzzled at this bureaucratic notion that cellophane is a monopoly.

The facts are that du Pont brought cellophane to this country when it was a new and novel idea and when no market existed for this product. With great courage this company invested enormous capital in putting cellophane into commercial production and additional capital in studying ways to make this product at continually lower prices which would make it available for packaging countless lower priced utility products. In addition, this company spent a great deal of money in very intelligent marketing which brought cellophane into almost universal use in packaging. The record shows that cellophane has been continually improved in many valuable ways by this company and there have been 21 price reductions since the product was first put on the market.

Competition is not always an easy thing to define. As many business men know, the toughest competition comes not from a direct parallel twin to their product, but from many other kinds of goods or services which can perform the same function as their own product. For this reason, cellophane, as everyone knows in packaging, has had plenty of tough competition from other various kinds of paper such as wax paper and from metal foils. Some years ago the American Viscose Company entered into the production of cellophane and has been an increasingly important factor.

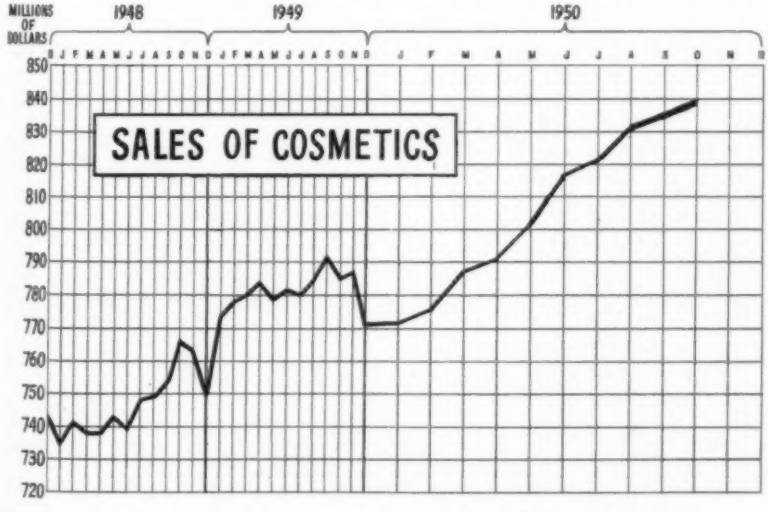
For a few years now, because of continual prodding by the government, du Pont has attempted to establish further competition by offering processes and technical advice and other help. In 1949 Olin Industries, Inc. took such a license and has been manufacturing cellophane since that time.

Just why the people in this particular government bureau have such a hatred of success is very difficult to understand. This particular company is a prominent factor in cellophane because, in the first place, they introduced cellophane in the United States when nothing anywhere near like it had ever existed. Because of their courage, their willingness to take a risk, their energy and their business ability, this is now inevitably a large business enterprise and also inevitably the largest enterprise in its broad competitor field.

Can a government say to the creative and courageous business men of the United States,—if you invent something that will be of great social value to the people of the United States, and if you work very hard to make this succeed and invest a great deal of your savings in it, you may go so far and no further?

What a sweet position this country would be in today with its need for large resources, for advancing research and for courage in expanding production, if the ideas of little men like these bureaucrats should prevail with the American people.

Retail sales of cosmetics for the twelve months ended with October 1950 totaled $839,669,000. This compares with $835,760,000 for the twelve months ended with September 1950 and with $785,055,000 for the twelve months ended with October 1949.



Personal Selling

Selling efficiency in retail stores has reached a low ebb according to Maxwell I. Schultz, executive vice-president of Willmark Service System, Inc., as shown by the company's annual nation-wide survey of retail selling and performance during 1950.

According to this report every phase of selling effort showed a marked decline with the rating growing progressively worse during the last half of the year.

The Handiest
Bottle Ever Made!
Manufactured Under Pat. No. 2,515,093
Other Patents Pending
ELMER E. MILLS CORPORATION'S
Polyethylene
Plastic Bottle
This is *the* bottle with consumer appeals so strong they actually help sell your product!
It's unbreakable—a powerful consumer selling point on safety and thriftiness.
It's lightweight—takes up less space (and incidentally cuts your shipping cost).
It's a "squeeze bottle"—can be readily adapted to use as a stream—as a spray—as a sprinkler finish.
Our stock bottle is available in 1—2—4—8 ounce sizes. Through a special printing process we can print your label or design right on the bottle.
In addition to the production of this stock bottle and stock closure, we also custom make other thermoplastic bottles, closures and atomizers. You can depend upon their being made with the same high standards of craftsmanship which keynote all Mills plastic products.
For more information on our custom molding service, or for a free sample bottle, write us or our sales agent today.
ELMER E. MILLS CORPORATION
2930 N. Ashland Ave., Chicago 13, Illinois
Sales Agent: W. BRAUN & COMPANY
Chicago, 300 N. Canal St.
New York, 595 Fifth Ave.

Weakness was particularly evident in the creative phases of selling, to instill buying desire in suggestive selling and in trading-up.

Department and specialty stores scored a rating of 78.3 per cent, off 4.4 per cent from their 1949 position. Drug stores at 76 per cent took fourth place in this survey.

More Retail Mechanization

The decision of the recently organized Western New York Apple Growers Association to set up refrigerated vending machines in central traffic spots in Buffalo and Rochester provides an interesting example of a new force that is rapidly developing in distribution in this country.

The New York Apple Growers have reason to anticipate success for this experiment because 10 machines of this type on test in the greater Los Angeles area in California sold a carload of apples, that is about 775 bushels in a 12-month period.

The reason the vending machine may easily prove a progressive step in distribution over self-service in a super-market is that the vending machine is one step further in the progressive mechanization which is now taking place in retailing and distribution. Apples sold in a self-service super-market have all of the advantages of selling which has already been demonstrated, that is the stimulus of suggestion and the opportunity of cashing in on unplanned purchases to a degree that has been found impossible in traditional retailing where personal selling has always intervened between the customer and their multitude of conscious and unconscious desires.

To procure an apple in a super-market self-service the customer must still anticipate a desire to eat an apple at some future date and must still set aside a specific period of time to travel to the super-market and must then still allow some time to stand on line at the cash register while purchases are added and change made. On the other hand, the properly placed vending machine in a factory, at some traffic center, such as the transportation depot, or a place of amusement, requires no anticipation of an appetite to eat an apple. The vending machine is standing right there where the customer happens to be of his own accord, with a potent suggestion that the appetite for an apple can be immediately satisfied with a transaction that will take not over 30 seconds.

We hear many unsubstantiated rumors of retail experiment and expansion into machine vending. It seems to us that we are clearly in the middle of a period of mechanization in retailing. If this is true, then it seems very plausible to say that the vending machine is emerging as one advanced step over self-service in the super-market. We think this is partly because the process of completing a transaction through a vending machine takes much less time than the same process in the super-market, and partly because, while the super-market, in common with all retailers, expects the customer to come to them, the vending machine in various ways is finding means to go to the customer, or at least to be conveniently on hand in places where customers congregate for other purposes than shopping.

Does Dignity Pay?

In the very thoughtful article "Why New Product Programs Fail" which appeared in this magazine several months ago and which attracted a great deal of attention, the writer very bluntly declared that a basic reason for such failures among so many of the larger companies must be attributed to the fact that the second and third generation of executives so often lacked the imagination, the energy and particularly the guts of the original founder.

We, ourselves, have several times deplored the lack of good old-fashioned showmanship in merchandising in our industry and the dreary round of imitations and me-toos which characterize most promotions. Not long ago we cited Hadacol as the greatest living exponent today of super showmanship and the results that it can obtain. Big business, once established, very often tends to look down its nose at the antics of the founder and to blind itself in an excess of respectability. Maybe they are perfectly correct in this, but the trouble is that the record doesn't always prove it.

It is notable on the one hand that so many of these big companies have not produced a new product worth a tinker's damn in terms of commercial success for a very long time and in addition they haven't even succeeded in making a brilliant success with a product that in itself wasn't worth a tinker's damn.

Just a few weeks ago, Dan Grayson, president of Hopalong Cassidy Enterprises, received the National Retail Dry Goods Association's award on behalf of Hopalong Cassidy Enterprises for "the organization which made the most important contribution to retail sales during 1950."

In accepting the award, Mr. Grayson said, "It is the contribution of retailers to the promotion of Hopalong Cassidy that has made it such a tremendous success. During the last six months alone, stores featuring Hopalong Cassidy merchandising placed more than six million lines of retail newspaper advertising. Indications are that the merchandising activities of the nation's retailers on behalf of Hopalong Cassidy products will reach even greater heights in 1951."

Probably this potent association of American department stores gave very little consideration to dignity or company history, but proceeded to select the award on a single basis of what produced the most money in over-the-counter sales for the year.

We hear rumors around the cosmetic business that the real scoop of the year was in the few packages produced as Rudolph the Red Nose Reindeer.

Certainly at one time during the summer and early fall of last year when there was a feeling of real apathy around the trade, these products were moving in an astounding fashion.

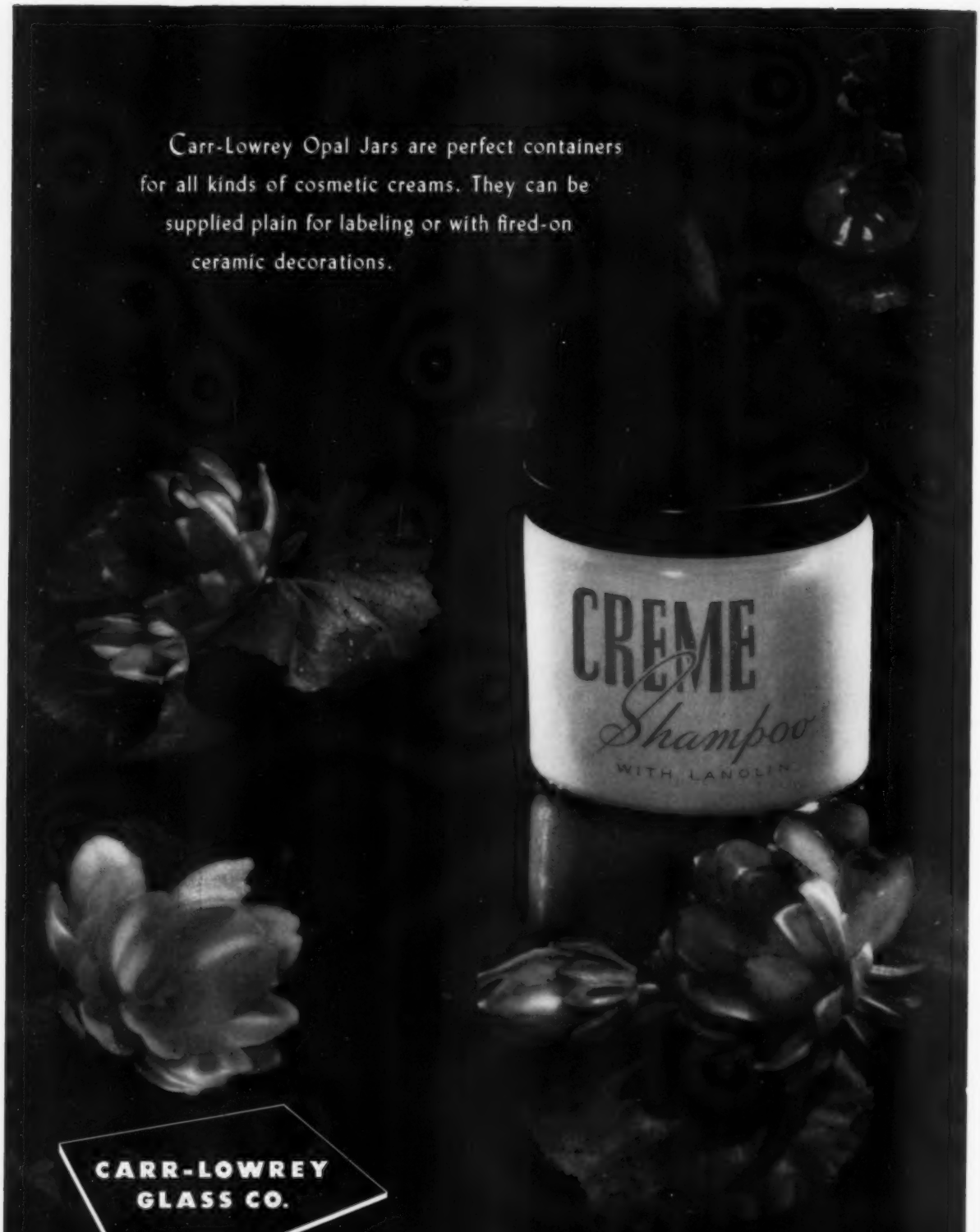
Maybe there is a lesson somewhere in things of this sort. At least the conclusion could be taken that dignity is not always an asset in business.

Sagging Gift Packaging

The record for this year's Christmas business for perfumes and cosmetics has not yet emerged very clearly. But there seems to be a general uneasy feeling among both manufacturers and store buyers which has not yet materialized into the open.

This is a feeling that perfume and cosmetic manufacturers have to a very large extent lost their initiative, their courage and their flair for Christmas packaging, and that a very high percentage of the store buyers have become timid and forgetful of just what a real share of Christmas business means to their department. The few manufacturers who did put out effective, distinctive, reasonably priced Christmas packages did very well with their ventures.

The perfume and cosmetic industry, with retail cooperation, must be a very vigorous, courageous contender for Christmas business. Neither the store nor the manufacturer can afford to see


Carr-Lowrey Opal Jars are perfect containers for all kinds of cosmetic creams. They can be supplied plain for labeling or with fired-on ceramic decorations.
CREME
Shampoo
WITH LANOLIN
CARR-LOWREY GLASS CO.
Designers and manufacturers of fine glass containers
Factory and Main Office: BALTIMORE 3, MD. • New York Office: 40 W. FORTIETH ST. • Chicago Office: 1572 MERCHANDISE MART

any fraction of this business wither or any part of the desirability for these products as gifts to lose out in the public mind.

The competition for gifts, particularly the Christmas gift, covers a wide range of many different kinds of products in a retail store. This competition largely resolves itself into a competition in creative packaging and store display.

This industry has always marched in the front ranks of gift occasions, but there seems reason to believe that during the last few years their feet have been dragging in a very dangerous way.

Foreign Revlon

Revlon is entering into a large scale foreign expansion. This company has just opened a new British plant and a similar plant in France will open in the next few months. It is also reported that the company is organizing new branches in five other countries.

Revlon's British program provides for not only production and sales in the British Isles, but large scale export from there to other countries. This company already has production and distribution in 78 countries on five continents.

Annual sales potential for the British home and export territory is stated to be in excess of $6,000,000.

Display Comes First

From the ranks of retail trade, in speeches and articles, comes a concentrated chorus of agreement that display will be the pivot of all retail merchandising in 1951.

Several retailers have already given their opinion that if they were compelled to chose between newspaper space or radio advertising or store display, they would select store display.

There has been a great deal of agreement concerning the relative merits of window and interior store display. Said one retailer recently, "More than any other store operation display can help to sell merchandise eventually and inexpensively. Its job is to direct customers in the store and make it easier for them to buy. In line with this thought greater emphasis must be placed on interior merchandise presentation. Therefore, it is suggested at least 75 per cent of the display budget should be spent on interior display and not more than 25 per cent on windows." This was the opinion of Harold Melnicove of The Hecht Co., Washington.

According to Findley Williams, national store planning and display manager, Sears, Roebuck & Co., "The point of sale is the sole point of profit for any selling organization, and with due respect to the power of window display, it's in the store where the merchandise is located where the sale is made and not "on the sidewalk."

The Growing Clamor

John W. Dargavel, at the annual convention of the National Association of Retail Druggists, warned druggists that they must merchandise as most of them have never done before to cope with the competition of grocery outlets.

He declared that of the 400,000 food retailers in the country, more than 80 per cent sell razors and blades, about 75 per cent have laxatives and dentifrices, better than 65 per cent carry shampoos and cold remedies and that these stores have become the principal distributors of baby supplies, including oils and talcum powders.

Mr. Dargavel warned manufacturers that it is not compulsory for independent druggists to sell popular items. The cold truth is that 99 customers out of every 100 will accept recommended substitutes of similar quality, he said. We, ourselves, have commented many times in other parts of this magazine that the druggist who thinks he can support personal selling with products that sell with ease and facility in self-service is pushing too heavy a weight uphill.

If, as Mr. Dargavel states, the druggist can so easily substitute them it would seem that the path of escape from this new competition, which has pharmacists so obviously alarmed, is to concentrate on products which do not so readily adapt themselves to self-service, but which do have a proven record of public satisfaction, and a unit price with a retail margin which justifies at least a little selling effort by the druggist.

How Many Whiskers?

It is estimated now that about a million and a half men each year join the ranks of those who must scrape the whiskers off their faces with some regularity.

Last year it was estimated that about 20 per cent of the men shaving used an electric razor. Fifty-four million men are today supposed to comprise the market for shaving materials.

Market Expansion

A good indication of the market expansion in this country in the last few years is provided in the data issued by the American Telephone and Telegraph Company for their new financing.

In expanding facilities, this company has spent more than $1,000,000,000 each year since the end of World War II to bring telephone service to 13,500,000 new applicants.

The total phones in service exceed 35,000,000, but there are still more than 800,000 people waiting for telephones.

Cosmetic Consumption

It would appear that there is a decline in the use of certain cosmetics over the last 10 years. In the industry there has been the general opinion that something like this has been happening although it is very hard to explain and few have ventured to guess.

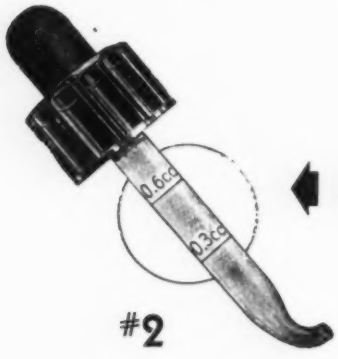
The reason why this condition, if true, could pose a very serious question is that during this same period there has been an enormous increase in population in this country and a parallel enormous increase in national wealth and in the number of people who have been moving into higher brackets of expendable income.

A recent study by the Fawcett Publications covering similar surveys for each year over the last 10 years shows the increase or decline of the following primary cosmetics selected from this survey.

PRODUCTS	*1941*	*1950*
Anti-perspirants & Deodorants	92%	96%
Bath or talcum powder	70	83
Hair Dressing	32	26
Cologne & Toilet Water	74	83
Cleansing Cream	80	60
Depilatories	14	10
Eye Shadow	19	16
Face Powder	99	85
Hand Creams	40	44
Hand Lotions	82	78
Lipsticks	98	99
Mascara	55	48
Nail Enamel	97	89
Rouge	85	54
Shampoo	93	97

Perfume, which was not reported until 1943 had a rating of 67 per cent in that year and 62 per cent in 1950. Home permanent waves first rated in 1944 as 17 per cent, reached 38 per cent in 1950. Professional waves rated at 77 per cent in 1942 went to 31 per cent in 1950.

New Perfection DROPPING PARTS



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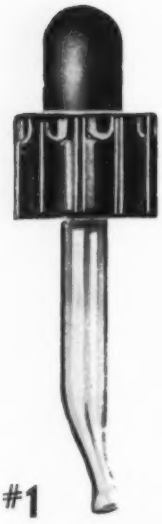
ACCURATELY CALIBRATED In Any Color



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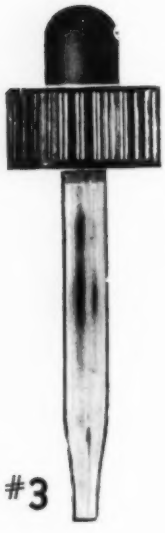

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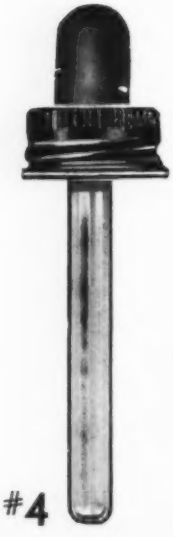


#4

This Inexpensive EXTRA FEATURE Adds A Welcome Convenience To The Use of Your Product

Accurate calibration of New Perfection dropper glasses adds immeasurably to the user's satisfaction with your product. Not only is the specified dose measured with more precision, but the tedious and time-wasting practice of counting drops is made unnecessary.

Trade-marks or firm names may also be imprinted on the glass, assuring that the name will be identified with the product each time it is used.

We can supply various colors of bulbs in natural rubber or in our special oil-resisting Amekine compound, caps of plastic or metal in many sizes and colors, and various types of dropper glasses in any length. New Perfection dropping parts will fit your own bottles, or can be supplied in combination with our Modernistic bottles in Amber, Blue, Green or Clear glass. Sizes: 2 cc, ⅛, ¼, ½, 1 and 2 oz.

Write for Samples and Quotations

PENNSYLVANIA GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. CRAIG ST. • PITTSBURGH 13, PA., U. S. A.

Package Opinion

Several leading package designers joined in a panel recently in Printers' Ink to discuss the packaging problems that are looming on the horizon.

According to these designers, the thing for manufacturers to do is to get going on their research for substitutes for everything and as near as possible be ready, but not to jump into this substitution until the emergency arises.

Packaging materials that may suffer first are reported as: Clay cardboard, nearly white paper, craft stock, private mold bottles, collapsible tubes, light and pastel shades in plastics, new molds, metal containers, foil and bronze ink.

Department of Commerce Monthly Retail Trade Report

Retail sales of all kinds in drug and department stores showing sales for the month of November 1950 as compared with the same period in 1949.

	Department Stores	*Drug Stores*		*Department Stores*	*Drug Stores*
Atlanta	+8	0	Minneapolis	+10	+6
Baltimore	+3	+7	Milwaukee	+13	+10
Birmingham	+12	–1	Newark	+1	X
Boston	–4	+8	New York	–1	+2
Chicago	+8	+6	Philadelphia	0	+3
Cincinnati	+2	+3	Pittsburgh	X	0
Cleveland	X	+12	Providence	X	+5
Dallas	+11	–11	St. Louis	+6	–9
Detroit	+13	+11	San Francisco	+5	+4
Los Angeles	+5	+1	Seattle	+16	+13

Returned Goods

There has been a substantial increase in the amount of goods returned by stores in the last several years, according to a survey just completed by the Research Department of the New York University School of Retailing. If the year of 1944 is taken as a basis, the recent increase in the relative amount of merchandise returned during the initial and final years of the period totals 33⅓ per cent, this report states.

This survey covered 10 of the largest New York department stores. This study and comments of executives in the stores give five reasons for the increasing volume of returned goods.

(1) The tendency toward more promotions of merchandise. Up to the beginning of the Korean situation there was an increasing volume of promotions, many of them of minor merit.

(2) Adequate records are not being kept. In many stores no records were kept on returned goods. Top level executives were not familiar with departmental situations and acted without this information. It might be added, what everyone knows in this trade, that at certain periods of the year, notably immediately following Christmas, department executives often make a record by a lavish return of merchandise which they immediately reorder after the record for their department is made.

(3) The recent sales emphasis on large appliances. During this period of favoritism of hard goods and the decline in soft goods sales, many stores have jumped into appliances of various sorts for which they were in no position to service and repair. Returns from products of this sort have been large.

(4) Emphasis on mail and telephone orders.

(5) Too liberal return policy. This is an individual characteristic of stores. As we know in this trade, some large, very reputable stores are completely callous and ruthless in this respect, while other stores have outstanding records of intelligent buying, integrity, and cooperation.

Just So

J. P. Hardie, vice president in charge of sales of Bristol-Myers Products Division, said, "As for our own brand, Resistab, we are planning several special promotions for the future. The uncertainty and consequent unfair attacks upon antihistamines have been diminishing, and it is our feeling that the future outlook for Resistab is bright."

Book Review

Cybernetics by Norbert Wiener is the textbook of a new science, or at least a new approach, opening new avenues in science. The author describes Cybernetics as a "study of human control functions and mechanics—electrical systems designed to replace them." Doctor Wiener wrote this book in collaboration with several leading physiologists, psychologists, mathematicians and electrical engineers. Among other things, Cybernetics is said to open new fields for exploration in medicine. Just to show what scientists have to go through now-a-days, here's where we stopped reading this book for review.

"However, the following statements are either established or very probable: that the frequency of clonic oscillation is much less sensitive to changes of the loading conditions than we expected; and that it is much more nearly determined by the constants of the closed arc efferent—nerve—Muscle—kinaesthetic—end—body—afferent—nerve—central—synapse—efferent—nerve than by anything else."

Sales Grow, Stores Decline

Sales in drug and proprietary stores in the United States amounted to $4,013,000 in 1948, according to the figures just released by the Bureau of Census. This reported an increase of 157 per cent over the $1,563,000 figure for sales by these stores in 1939.

In spite of this growth in sales volume, there was a decline in the number of these stores between the two business censuses.

In 1948 there were 55,796 drug and proprietary stores in the United States compared to 57,903 in 1939. In 1948 the five leading states in terms of sales volume of drug and proprietary stores were New York, California, Illinois, Pennsylvania and Michigan.

Time for Bigger Units

There is quite a bit of retail prophecy that next year dollar sales will be up but unit sales will be down. Retailers are depending upon inflation and higher prices to maintain an increase of dollar volume.

However, Bernard G. Cohn, president of the Independent Retailers' Syndicate, said in a recent talk, "Retailers must set their sight not only on higher dollar sales, but also on higher unit sales, and fashion promotions are the best ammunition in the battle for more unit sales."

Mr. Cohn was talking primarily of apparel, but the cosmetic industry is one of the many non-apparel industries that has found a way to give a fashion presentation of their merchandise.

It may well be that we are entering a a period where the consumer is willing to invest a larger amount of money by unit purchase, either for the economy or security of larger size packages or for some elements such as fashion.

CALUMET

FIRST *for*

METAL AND PLASTIC CONTAINERS
AND SPECIALTIES

FLEX-O-THENE * NEW POLYETHYLENE PLASTIC BOTTLES

FROM AN OUNCE *TO A* GALLON

***ASSURES** UNIFORM WALL THICKNESS
REPRODUCTION OF ANY DESIGN OR SHAPE

STANDARD ROUNDS FOR IMMEDIATE DELIVERY

CALUMET MANUFACTURING CO., INC.

565 Fifth Avenue

Sam Schwartzman
President.

NEW YORK (17), N.Y.
MUrray Hill 8-4270

CALUMET

FIRST *for*

METAL AND PLASTIC CONTAINERS
AND SPECIALTIES

BRASS IS OUT!

AN ORDER TODAY IS YOUR CONTAINER INSURANCE

PLASTIC SWIVEL AND PUSH-UP LIPSTICK CONTAINERS
(SHOWN ACTUAL SIZE)

FREE WHEELING
SWEAT PROOF

PRECISION MADE
LOCKTITE

CALUMET MANUFACTURING CO., INC.

565 Fifth Avenue

Sam Schwartzman
President.

NEW YORK (17), N.Y.
MUrray Hill 8-4270

METAL CONTAINERS *and* CLOSURES
by
BRIDGEPORT

Vanities
Jar Caps
Bottle Caps
Drawn Talc Containers
Lipstick Containers --- Swivel, Slide, Automatic
Powder Boxes
Perfume Vial Cases and Caps
Lip Brushes
Dry and Paste Rouge Cases

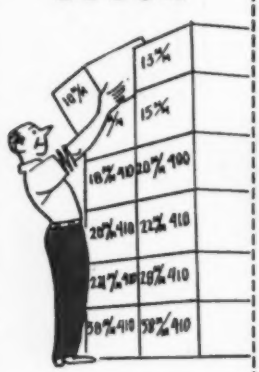
and

Other Special Metal Products for the Cosmetic Industry

THE BRIDGEPORT METAL GOODS MFG. CO.
Established in 1909
BRIDGEPORT CONNECTICUT

MOLDED CLOSURES
by ***Terkelsen***

STOCK



Stock sizes 10 m/m to 58 m/m in phenolics or striking urea colors

CUSTOM

We specialize in private mold designs

Terkelsen **MACHINE COMPANY**
324 A STREET, BOSTON 10, MASS.
Jesselson Sales Co., Inc.
347 Fifth Ave., New York 15
J. Rabinowitz & Sons, Inc.
2 Hanson Place, Brooklyn 17

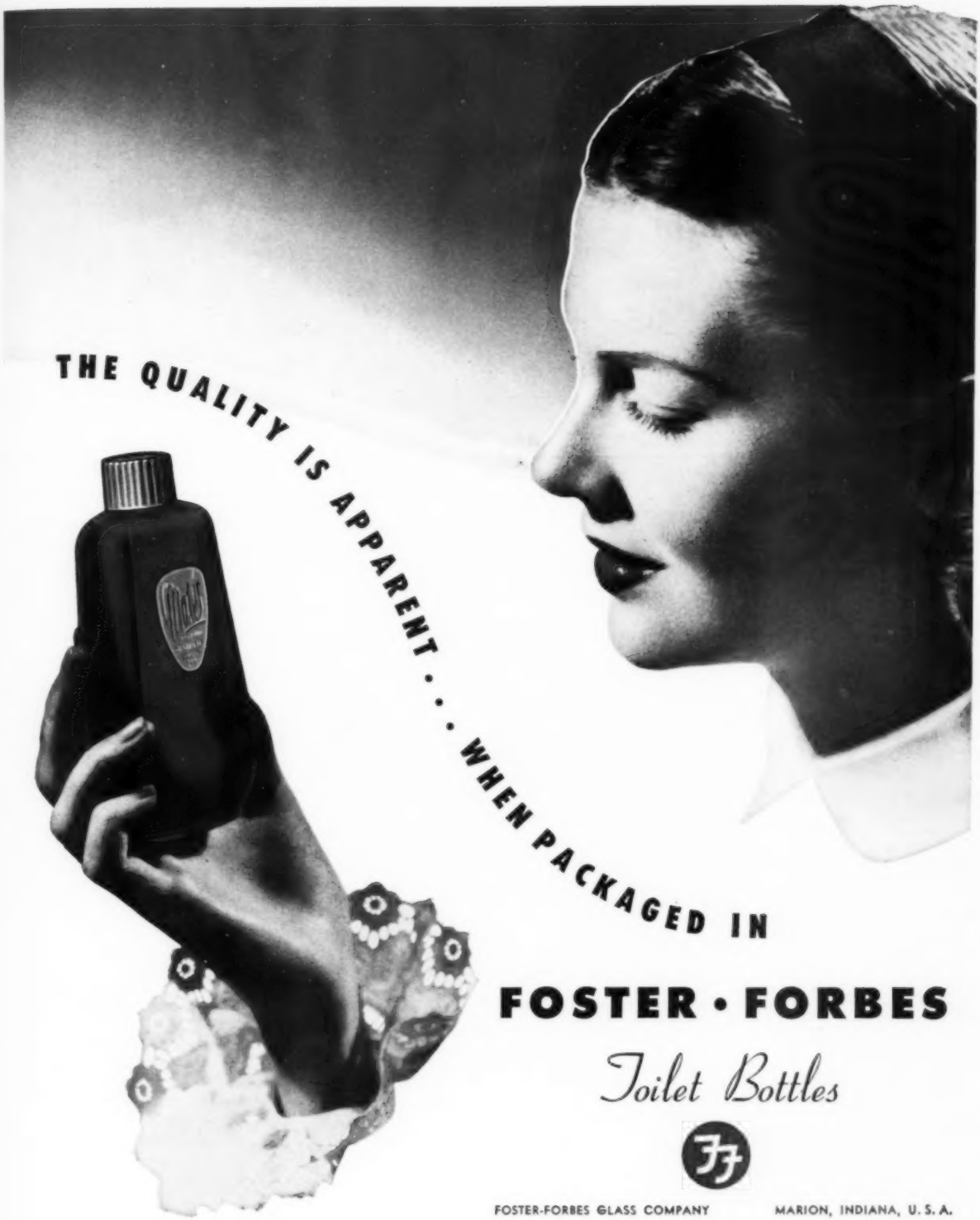
BIG or LITTLE there's a Stainless Steel SAN-I-TANK .... to fit your special needs

New type "CHR" jacketed, insulated, stainless steel SAN-I-TANK is suitable for all types of hot or cold, light or heavy processing. Wiping action of agitator arms prevents mix from lumping or adhering to tank sides. Standard capacities: 150, 300, 500, 1000 gallons. Write today for Bulletin CHR-50.

To simplify blending, mixing, storage — or heating and cooling — whether your need is for a horizontal or a vertical tank, with or without agitators, specify Stainless Steel SAN-I-TANKS.

Type "J" is an open tank for processing and storage. Adapted to standard fittings, this sturdy stainless steel SAN-I-TANK is desirable where large tank capacities are not required. Standard Capacities: 60, 100, 200, 300, 400, 500, 600, 700, 1000 gallons. Write today for Bulletin SS-50.

STAINLESS STEEL SAN-I-TANKS
METAL GLASS PRODUCTS COMPANY
BELDING 4, MICHIGAN


THE QUALITY IS APPARENT . . . WHEN PACKAGED IN
FOSTER • FORBES
Toilet Bottles
FF
FOSTER-FORBES GLASS COMPANY
MARION, INDIANA, U. S. A.

SALES OFFICES

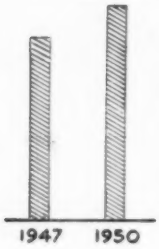
KANSAS CITY
DETROIT
CHICAGO
CLEVELAND
MILWAUKEE
CINCINNATI
LOUISVILLE
ST. LOUIS
ST. PAUL
NEW YORK
MEMPHIS
HAVANA, CUBA

CONSUMERS BUY

says FOURTH BIG

New market study shows favorable customer reaction to aerosols . . . Paints bright sales future for aerosol dealers, manufacturers

More people buy now. Large market yet to be explored!



Recent "Freon" surveys show that the use of aerosols in the home has steadily increased for all economic classes. In 1947, 27% of consumers had purchased aerosols. Today almost half the people interviewed are aerosol users. But the surveys also show that there still remains a large untapped market for aerosol-packaged products.

Consumers like aerosols. Return to buy again!

There are plenty of opportunities for dealers to make repeat sales of aerosol products. In fact, since 76% of those buying aerosols are completely satisfied, and 21% are partially satisfied, there is a resale potential of 97%! Among the reasons customers give for returning to buy aerosols instead of other types of products are ease of use, less muss and greater durability.

Insecticides best sellers. Other products show gains!

Insecticides are still the best-selling aerosols, but other aerosol products such as room deodorants, mothproofers, paints and plastic sprays are runners-up. New aerosol products—personal deodorants, shampoos, shave creams, suntan lotions and the like have recently appeared on the market and should receive hearty approval.

Aerosol users want safety. "Freon" safety unsurpassed!

Safety is a factor in aerosol buying that is often in the customer's mind . . . often makes the difference between a sale and no sale. That's why so many dealers find it a definite sales advantage to be able to stress the many safety characteristics of "Freon" propellents! These propellents are nonflammable, nonexplosive, of extremely low order toxicity . . . harmless to foods, furs, flesh, fabrics and finishes. They have no color or taste and are practically odorless.

DU PONT
REG. U.S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

"FREON" SAFE

MORE AEROSOLS "FREON" SURVEY!

Play safe . . . look for these "Freon" exclusives!

"Freon"—and only "Freon"—can offer all of these safety characteristics *plus* a range of pressures from 1 to 120 lbs. sq. in. gauge. And in addition "Freon" can provide the special solubility characteristics needed for certain ingredients. "Freon" propellents are good solvents for DDT, methoxychlor, Lethane 384 and chlordane—as well as hydrocarbons, alcohols, esters, ethers and ketones. A cosolvent can be used to dissolve materials such as ethylene glycol, otherwise insoluble in "Freon." Think of these advantages, then use only "Freon" safe propellents!

Send for your digest copy of this "Freon" survey today!

FREE! *Your own digest copy of this 4th big survey of the aerosol market—the only report of its kind anywhere—together with complete data on "Freon" propellents. It's yours just for the asking. Write today: E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.*

Plan to aerosol-package your product today!

HERE'S HOW TO GO ABOUT IT:

1. Determine that there is a market for the contemplated product.
2. Develop a stable formulation, including propellent, which can be packaged in a suitable container.
3. Shelf-test the proposed finished-product package before production or sample merchandising is attempted.
4. Have a quantity packaged for test marketing. There are custom loaders who will fill quantities as low as 5,000.

"KINETIC" TECHNICAL SERVICE WILL HELP YOU

As a service to users of "Freon" safe propellents, Du Pont is ready to assist any manufacturer in entering the aerosol market. This includes aid at every step from market exploration to planning shelf-testing and interpretation of the results.

If you are thinking of entering the aerosol market, be sure to find out how "Kinetic" may be of real help to you. No obligation. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.

PROPELLENTS

KINETIC
REG. U. S. PAT. OFF.

"FREON" is Du Pont's registered trade-mark for its fluorinated hydrocarbon propellents.

Empress Molded Closures are available in many colors —provide package distinction for your product

How to give your product that properly finished look

A PLASTIC CLOSURE BY Owens-Illinois not only gives your package an elegantly finished appearance but has many other worth-while advantages.

These molded closures won't rust or corrode—are easy to apply and remove repeatedly. They give a more positive seal and reseal and a full range of colors to enable matching or contrasting with labels. Molded to exact specifications, private designed closures can be tailored to the most rigid production requirements.

CLOSURE DIVISION — OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

NEW PRODUCTS AND NEW PACKAGES

ABBOTT LABORATORIES has released Sorla-Bilein capsules which combine the therapeutic fat emulsifying properties of Sorlate with the choleretic and hydrocholeretic function of hydrobilein. They are designed for the increased absorption of dietary fat and the improved function of the biliary tract.

AUSTIN-GREENE, INC. is distributing Remayn, an indelible lipstick, through stores in some of the northeastern states. The lipstick ranges in six shades from vivid oranges through deep blue-red. It contains a special binder which avoids greasiness, yet achieves high gloss, and does not have the frequent indelible bitter taste. The lipstick comes in a smooth, polished gold-tone case with a grooved finger-grip base priced at one dollar plus tax.

BOURJOIS, INC. is distributing a new Evening in Paris combination, including a full size box of the Evening in Paris face powder coupled with a purse flacon of perfume. The regular value of these items is $1.50 but this combination will sell for $1.00 plus tax for a limited time.

GEORGE A. BREON & CO. is offering Transibarb for prescription use by physicians in the symptomatic treatment of menopause and other nervous or depressed conditions. The combination contains a central nervous-system stimulant and a sedative in the proper proportions, along with alphatocopheryl acetates.

These capsules may also be used to reduce nervousness and apprehension frequently found in elderly patients with mental depression.

CALUMET MANUFACTURING CO., INC. are producing five different swivel-type lipstick containers and one push-up type. They plan to make cases of plastic materials which prevent the sweating of lipstick fillers, and to incorporate their patented free-wheeling and Locktite features.

CHERAMY is presenting Liquid Skin Sachet, highly scented with April Showers. Perfume with a sachet base, the liquid skin sachet is said to be a very long-lasting fragrance medium.

H. CLARKE & SONS, INC. are distributing Bulk-Tabs, a new product for the treatment of constipation. Containing methylcellulose, the product is said to be tasteless, odorless, nontoxic, non-irritating, non-fattening, nonallergic, and non-habit-forming. It is packed in two sizes of amber Blake bottles holding 65 and 130 tablets. Bottles and coated metal closures are manufactured by the Owens-Illinois Glass Company.

CURLCARE COMPANY is offering Hairmone, containing natural estrogenic hormones as an aid to hair beauty. The product helps correct and condition dry, brittle hair at the hair roots.

GOURIELLI has created Full-View Lipstick, a compact and convenient lipstick with an attached mirror. The gold finished oblong looking-glass is fastened permanently to the top of the lipstick case and has a strong wearing clasp which locks securely to the base when not in use.

When it is closed, the lipstick takes exactly as much handbag room as a standard case, and has no projecting parts to catch or break.

DOROTHY GRAY, LTD. will offer later this month a bright new makeup shade, Sea Coral, keyed to the spring and summer fabric colors. It will come in lipstick with a new, longer-lasting color; in rouge, and nail polish, the latter in a new bottle with plastic handle on cap.

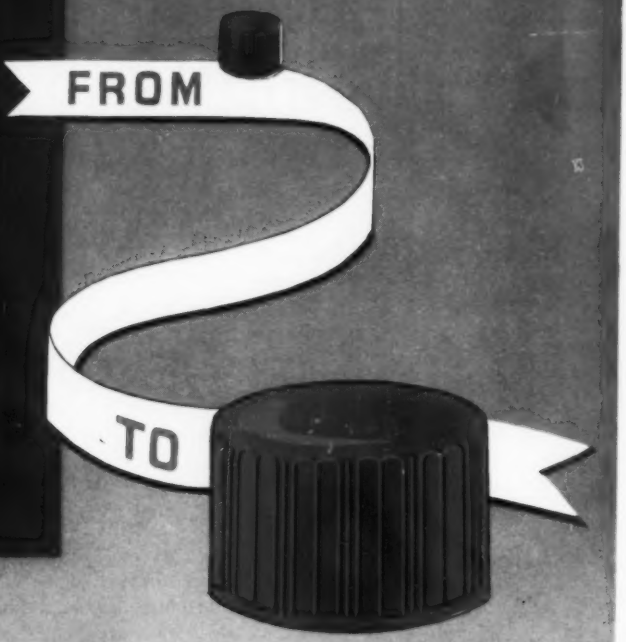
RICHARD HUDNUT has introduced the new Whirl-A-Wave Curlers in a special combination package which contains a Home Permanent Refill Kit, with Neutralizer Booster. They are made of flexible plastic and bend while holding the hair gently but firmly. They will not mark the curls when fastened.

IVES CAMERON CO., INC. has announced the preparation of Docehema Capsules, a multiple-purpose hematinic containing nutrients essential in the regeneration of red blood corpuscles. The capsules are indicated in the treatment of many of the commonly encountered hypochromic and hyperchromic anemias.

LEDERLE LABORATORIES is introducing two new products: Aureomycin Otic, a new form of aureomycin for local application in ear infections, and Heparin Repository, for use in obtaining immediate and prolonged anticoagulant action.

Two or three drops of a suspension of Aureomycin Hydrochloride Crystaloline Otic Lederle, administered three times daily to the affected ear, is useful in the treatment of acute and chronic otitis externa.

STOCK *Plastic Caps*



AND EVERYTHING IN BETWEEN

-in any COLOR *you want*

No matter what size bottle closure you require, Standard's famous "Classic" design can fill the bill.

It is available in 11 sizes from 8 mm. to 38 mm.; in short, medium and tall skirt; regular finish, or with well for applicator or hole for dropper.

And we can match any color you want. Write for samples and prices on the size and quantity in which you are interested.

Standard's stock "CLOVER LEAF" design is available in the most popular cosmetic sizes and in any color . . . We are also equipped to make Private Mold Closures to your order.

STANDARD CAP
AND MOLDING COMPANY, INC.
PLASTIC CLOSURES

307 S. EATON STREET • BALTIMORE 24, MD.

OFFICES IN ALL PRINCIPAL CITIES • LATIN-AMERICAN REPRESENTATIVE: ROBERTO ORTIZ, HAVANA

NEW PRODUCTS AND NEW PACKAGES

Heparin Repository is said to have the following advantages over previous forms of heparin and other anticoagulants. It is injected subcutaneously, takes immediate effect and produces prolonged action for about 48 hours, and its rate of absorption is under control at all times. The anticoagulant effect may be speeded up by application of heat to the injected area, it may be slowed down by similar use of ice, and it may be stopped by prolonged refrigeration, by use of tourniquets, by whole blood transfusions, or by globulin injection.

MARLENE'S INC. is featuring its new Hair Waving Shampoo with two-color ceramic labeled jar and lithographed cap. The shampoo is said to be an "All in One" hair waving chemical, set, conditioner, beautifier, and dandruff remover.

McNEIL LABORATORIES, INC. have announced the preparation of Tablets Hepatinic, a new hematinic and nutritional supplement indicated in secondary or hypochromic anemias. Each capsule-shaped orange tablet represents ferrous sulfate, liver concentrate, vitamin B_{12}, thiamine hydrochloride, riboflavin, and niacinamide.

NORTHAM WARREN CORP. has introduced Nail-flex, a new scientific cream for problem nails. Presented by Cutex, the cream is made from an exclusive formula which contains lanolin, cholesterol, and a white iodine compound. Tests have shown that regular use of the cream prevents nails from splitting or becoming brittle and helps promote and strengthen them in addition to keeping the cuticle soft and pliable.

ORGANON INC. has announced the preparation of Neo-Hombreol (F), an aqueous suspension of microcrystals of free testosterone, which provides effective therapy and minimizes the pain of injection, eliminating the possibility of reaction to oil. The product provides efficient treatment for all disturbances in which male hormone therapy is indicated.

Another new product is Penicombisul Tablets, which contain potassium penicillin G crystalline, sulfacetimide, sulfadiazine, and sulfamerazine. The addition of the penicillin to the combination of sulfonamides is said to minimize the possibility of developing bacterial resistance. In this product, also, renal irritation is at a minimum.

THE A. H. ROBINS CO. has launched a new drug combination, Phenaphen with Codeine, which minimizes the need for other narcotics in the control of especially severe pain and fever. The product is designed to reduce constipation, nausea, and other undesirable side-effects which frequently ensue when codeine, alone, is prescribed.

HELENA RUBINSTEIN has combined a new ingredient, "Indelibase" with a new lipstick formula called "Stay-Long," to produce an indelible lipstick which protects lips against chapping and peeling. This new lipstick is prepared in all ten Rubinstein colors, keyed to every complexion and hair coloring.

PEGGY SAGE has introduced a new nail polish, Crystallin Finish, having a hard finish which enables polished fingertips to retain their freshly manicured look over a period of time.

SCHERING CORP. has prepared Tricombisul Liquid, each teaspoonful of which contains sulfacetimide, sulfadiazine, and sulfamerazine. When used as directed, the likelihood of renal precipitation or crystalluria is greatly reduced because of the lessened amount of any one sulfonamide in the mixture.

SHARP & DOHME, INC. is ready to distribute Tyrolaris, the first antibiotic mouth wash. The solution contains a surface active agent which causes it to spread and foam throughout the mouth, and is said to remove debris and film from tooth crevices and surfaces, tending to combat many mouth bacteria responsible for tooth decay.

As a general mouth wash or spray, it is used full strength at one-half to two-hour intervals, or as directed by dentist or physician.

SMITH, KLINE & FRENCH LABORATORIES are introducing elixir Eskaphen B with Belladonna, containing natural belladonna alkaloids, phenobarbital and thiamine hydrochloride. It is said to be of particular value in mucous colitis, dysentery and nonspecific ulcerative colitis, peptic ulcer, and spastic constipation, among other conditions.

WINTHROP-STEARNS INC. has introduced Sulfamylon Hydrochloride 5 per cent in 8-ounce bottles for topical treatment of local infections of eye, ear, nose and throat. The new package provides a stock solution for use where Sulfamylon 5 per cent is indicated without the use of streptomycin. The company continues to prepare the one-percent solution in bottles of 1 ounce and 8 ounces.

NEWS FROM THE CREATORS OF THE SENSATIONAL NEW

RICHFORD SPILLPROOF* PERFUME FLACONS

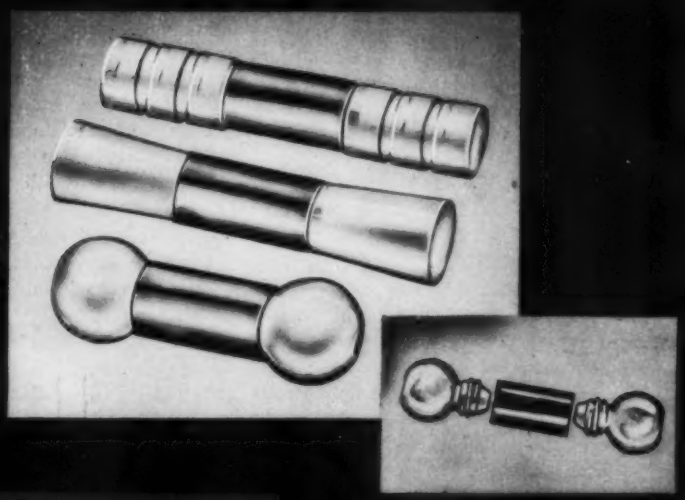
SPILLPROOFS

Top Left:
Plain Round (1 dr.)

Top Right:
Plain Round (1 ½ dr.)

Lower Left:
Pinched Square (1 dr.)

Lower Right:
Watch Case (1 dr.)



DUETTES

for day & night perfumes

Twin ½ dram flacons on polished brass closure

Top:
Fancy Round

Center:
Tapered Hour Glass

Bottom (and inset):
Dumb Bell

New designs (pat. pending) immediately availa or your own suggestions develope by Richford *design engineers*

SPILLPROOFS IN METAL

Plain round (1 dr.) encased in highly polished metal container with flush cap.

RICHFORD CORPORATION

251 FOURTH AVENUE
NEW YORK 10, N. Y.

PATENTS PENDING
*TRADE MARK

NEWS...

Porter Named Ayer President

Keith Porter, sales manager of Harriet Hubbard Ayer, Inc., division of Lever Brothers Co., since last August, has been elected president of the company, according to Jervis J. Babb, Lever president. He succeeds Ralph P. Lewis who resigned.

He joined Lever Brothers Ltd. of Canada in 1946 as a salesman, later becoming supervisor of the Ontario sales division. The following year he was named sales supervisor of Pepsodent of Canada and later served as advertising manager. He became general sales manager of Harriet Hubbard Ayer of Canada in 1948.

KEITH PORTER

Hoffmann-La Roche Appointments

Thomas Brown has been appointed to the newly created position of general sales manager, specialties division of Hoffmann-La Roche Inc., according to Robert A. Hardt, vice-president. He has been serving in the capacity of sales manager and was formerly Pacific Coast division sales manager.

John Lloyd Huck, Jr. has been appointed director of sales training, specialties division. He has been serving as an administrative assistant in the sales department and was formerly a salesman in the Omaha territory.

Promoted by SKF

John J. Gilbert, formerly chief accountant, has been named assistant treasurer of Smith, Kline & French International Company and Smith, Kline & French Inter-American Corporation, subsidiaries of SKF Laboratories.

Parke, Davis Promotions

Graydon L. Walker, formerly assistant to the domestic sales manager at Parke, Davis & Co., has been promoted to assistant director of sales and promotion, according to Harry J. Loynd, vice-president and director of sales and promotion. At the same time, Carl Johnson, field supervisor, was promoted to United States sales manager. He will be directly responsible for all problems pertaining to branch sales departments in the United States. Mr. Walker will aid Mr. Loynd in developing policies, sales and promotion plans, and the general administration of all activities of the sales and promotion division.

GRAYDON L. WALKER

CARL JOHNSON

Hiller Named Pres. Salesmen's Ass'n

Paul W. Hiller, of Innis Speiden & Co., assumed the presidency of the Salesmen's Association of the American Chemical Industry at the association's annual election luncheon on January 25. Other officers elected were Edward Bush, Bush Aromatic Chemical division, Dow Chemical Co., vice-president; Robert J. Milano, Millmaster Chemical Corp., treasurer; Warren F. Schumacher, J. T. Baker Chemical Co., secretary.

Danco Named Pres. Ess. Oil Ass'n

Gerard J. Danco of Gerard J. Danco, Inc., was elected president of the Essential Oil Association of U. S. A. at the annual dinner and election of officers on January 5. George H. McGlynn, Magnus, Mabee & Reynard, Inc., became the vice-president and W. S. Fairhurst, Tombarel Products Corp., was elected secretary-treasurer. Ray C. Schlotterer was re-elected managing director.

H. P. Wesemann, Fritzsche Bros., Inc., former president, was named to the executive committee of the association, as was F. Ditrich of Ungerer & Co., Inc. Other members of the committee include Ph. Chaleyer, Ph. Chaleyer, Inc.; Val H. Fischer, Dodge & Olcott Co.; F. K. Goudsmit, Van Ameringen-Haebler, Inc.; Dr. Eric C. Kunz, Givaudan-Delawanna, Inc.; F. J. Lueders, George Lueders Co.; and G. J. Tombak, E. I. du Pont de Nemours & Co., Inc.

GERARD J. DANCO

Bristol Labs. Appoints

Richard Pilkington has been promoted to the sales division post, Bristol Laboratories, Inc., of special representative for the Central United States, and will continue to make his headquarters in Chicago. Louis F. Bradley Jr., has joined the company as manager of the central sales division, while John S. Nichols has been promoted to the position of district manager for the Virginia, Maryland and District of Columbia territories, with headquarters in Washington, D. C.

New ACTH Plant for Armour

Armour & Co., plans to build a $5,000,000 pharmaceutical research and manufacturing plant in Kankakee, Ill., according to Thomas E. Hicks, director of the company's pharmaceutical branch. The manufacture of ACTH will be one of the chief functions of the new plant.

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Caffeine	Sodium Benzoate
Calcium Chloride	Sodium Chloride
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Magnesium Sulfate	Sodium Salicylate
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McLean Appointed by Merck

Dr. William H. McLean has been appointed to the new position of vice-president for marketing of Merck & Co., Inc., according to James J. Kerrigan, president. Dr. McLean had previously been director of commercial development, and more recently, chairman of the marketing committee at Merck.

DR. WILLIAM H. McLEAN

Armour Office—in San Francisco

The Armour Laboratories have opened a new division office in San Francisco, the latest of four new offices, including those in New York, Dallas, and one already in operation in Chicago. These new offices replace a series of district sales offices controlled and supplied from Chicago and mark the completion of a program of reorganization which will improve and speed up distribution of Armour products.

The San Francisco office is headed by R. S. Siers, formerly with Schenley Laboratories. A branch office in Los Angeles will be headed by V. J. Holderby, transferred from Chicago. This office will serve nine states, California, Oregon, Washington, Idaho, Montana, Wyoming, Arizona, Utah and Nevada.

Armour has also announced several changes in personnel at the general office. Dr. Joseph A. Hubata, formerly medical director, has been promoted to director of professional services, and Dr. A. H. Holland, Jr., associate medical director, has been made medical director. John E. Hartlein, formerly with E. R. Squibb & Sons, has joined the Armour Laboratories as product manager of liver products and B_{12}.

New Officers of Enloe, Inc.

John B. Johnson has been elected vice-president of Cortez F. Enloe, Inc., according to the board of directors. Additional elections include Mrs. Jean Westwick, secretary; and James Galton, treasurer.

Moore with Ungerer 25 Years

H. B. Moore, second vice-president of Ungerer & Company, recently completed 25 years of continuous service with the company. During a dinner given in his honor last month by officers of Ungerer, Mr. Moore was presented with an engraved gold wrist watch. The presentation was made by F. H. Ungerer, chairman of the board.

H. B. MOORE

Dr. Newcomb Honored by Committee

The steering committee of the Bureau of Education on Fair Trade adopted a resolution honoring the late Dr. Edwin Leigh Newcomb for "outstanding contributions to the development and preservation of fair trade" during a meeting last month in New York, according to Dr. John W. Dargavel, bureau chairman.

A leader in the field of pharmacy for many years, Dr. Newcomb had been executive vice-president of the National Wholesale Druggists' Association and a member of the bureau's steering committee.

Bymart Enlarges Staff

Harry B. Wasserman, formerly general manager of the Carroll drug chain and president and general sales manager of Bombi Perfumers, Inc., has been appointed New England division sales manager for Tintair, according to Phil Kalech, senior vice-president in charge of sales for Bymart, Inc. Four additional men have been named to fill newly created district sales posts in various parts of the country. Robert W. Proctor will cover New Jersey and Delaware; Charles W. Wood, part of New York; Martin L. Thomas, Arkansas, Louisiana, Mississippi and Tenessee; and Philip A. Campisi, in and around New York City.

Also added to the Bymart staff were 14 new district sales representatives for Tintair. These include James C. Morrison, Jay Morrison, Ivan B. Mason, J. W. Wornall, and Sherwood W. Gumbiner for the wesern states. Joining the southern sales staff are Franklin S. Simonin, Jules J. Pilant, Paul Funderburke, and Hugh S. McGranahan. The Middle West will be covered by William H. Lambrecht, John J. Bucholtz, Harold F. Meier, W. C. Bene, and William McCormick.

Sterwin Appointments

Warren F. Keller, who joined Sterwin Chemicals Inc. a year ago, has been named assistant technical director, according to P. Val Kolb, president, and Kenneth R. Leggett, formerly with American Cyanmid Co., has been added to the firm's technical staff at New York Headquarters, under Dr. R. C. Sherwood, technical director.

Jean Despres, executive vice-president of Coty, addressing annual Coty sales meeting of Jan. 21. Left to right are: Mary Crosby, assistant to Mr. Gallais; F. M. Gallais, field merchandising manager; Louise Bruel, director of supervisors; Don Clement, supervisor of sales agents; Philip Cortney, president; and Jean Millon, sales manager.

Dr. Sarett to Get Baekeland Award

Dr. Lewis H. Sarett of Merck & Co., Inc., who first synthesized cortisone, has been chosen to receive the Leo Hendrik Baekeland Award of the American Chemical Society's North Jersey section for 1951, according to Dr. George L. Royer, chairman of the section. Dr. Sarett was cited for his "outstanding achievement in creative chemistry." He will be presented with the award at a dinner meeting of the North Jersey section in Newark (N. J.) on April 23.

The Baekeland Award, consisting of a gold medal and $1000, is sponsored by the Bakelite division, Union Carbide and Carbon Corporation, and is conferred bienially upon an American chemist under 40, in recognition of accomplishments in pure or industrial chemistry.

Schenk Named President Sun Tube

R. Smith Schenk, formerly executive vice-president of Sun Tube Corp., has been named president, while Joseph D. Martin and E. Payson Fairchild have been promoted to vice-presidents. Mr. Schenk joined the company in 1924 as their first employee, and perfected the "thin-plate" process for printing on extruded tubes. Mr. Martin has been with Sun Tube since 1927, and Mr. Fairchild, since 1935.

Appointed by SKF Foreign Div.

John J. Gilbert, formerly chief accountant, has been named assistant treasurer of Smith, Kline & French International Co. and Smith, Kline & French Inter-American Corporation.

JOHN J. GILBERT

Wander Co. Buys Smith-Dorsey Stock

The Wander Company of Chicago, manufacturers of special dietetic and pharmaceutical products, have acquired all of the capital stock of the Smith-Dorsey Company of Lincoln, Nebraska. There will be no change in the policies or in the organization of Smith-Dorsey.

Richard E. Bennett, president of Smith-Dorsey; Fred W. Misch, executive vice-president; and Frank D. McDermott, vice-president in charge of sales, will all remain with the company in their present capacities.

Ebberts Retires from Armstrong

E. F. Ebberts has retired as manager of the corks department of the Armstrong Cork Company glass and closure division, and has been succeeded by Ralph A. Acklin, former assistant manager, according to Joseph C. Feagley, vice-president and general manager of the division. Mr. Ebberts had been associated with the company for 44 years.

E. F. EBBERTS

Honored by Inst. of Chemists

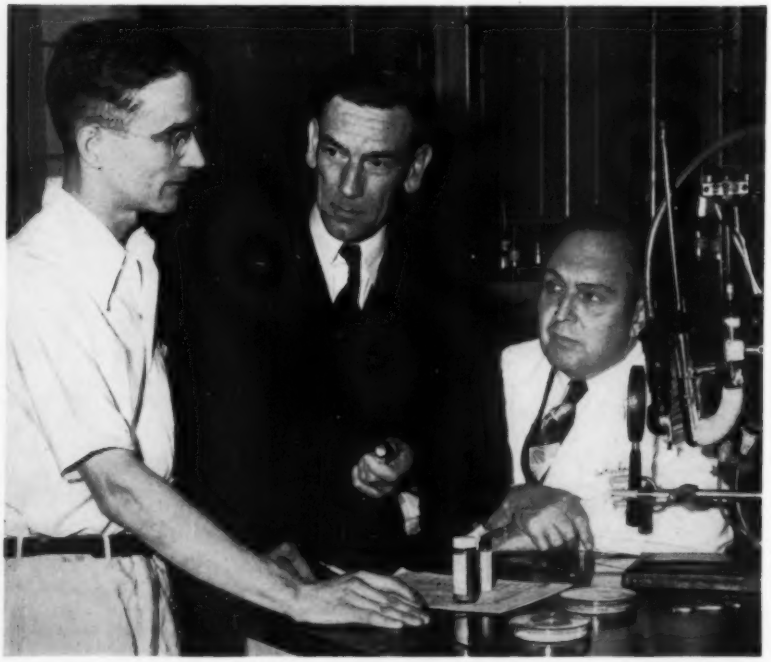
Jerome Alexander, consulting chemist and chemical engineer, 50 East 41st St., New York, was made an honorary member of the American Institute of Chemists at the January 25 meeting of the New York Chapter at the Hotel Commodore, according to Lawrence Flett, National Aniline division, Allied Chemical & Dye Corp., and president of the National Organization. The honorary membership was bestowed upon him by Dr. Maurice J. Kelley, Nopco Chemical Co., and chairman of the New York chapter.

Mr. Alexander is a pioneer worker in colloid chemistry, and has edited and written numerous volumes and articles, some of which have become standard textbooks and reference works.

Ciba Clinic on Sales Problems

Ciba Pharmaceutical Products, Inc. held a clinic on sales problems for its professional service representatives of the eastern division in Washington, D. C. in December. The meeting was called by James O. Winning, eastern division manager, and the sales program for the new year was outlined by Vincent A. Burgher, vice-president in charge of sales, and Frank H. Pratt, sales manager. Douglas E. Ward, marketing research director, and Paul W. Roder, advertising manager, delivered a report at the meeting.

Professor Frederick E. King (center), of Nottingham University, England, visiting Smith, Kline & French Laboratories. With him are Dr. Paul N. Craig (left) and Dr. Fred P. Nabenhauer, SKF research scientists.



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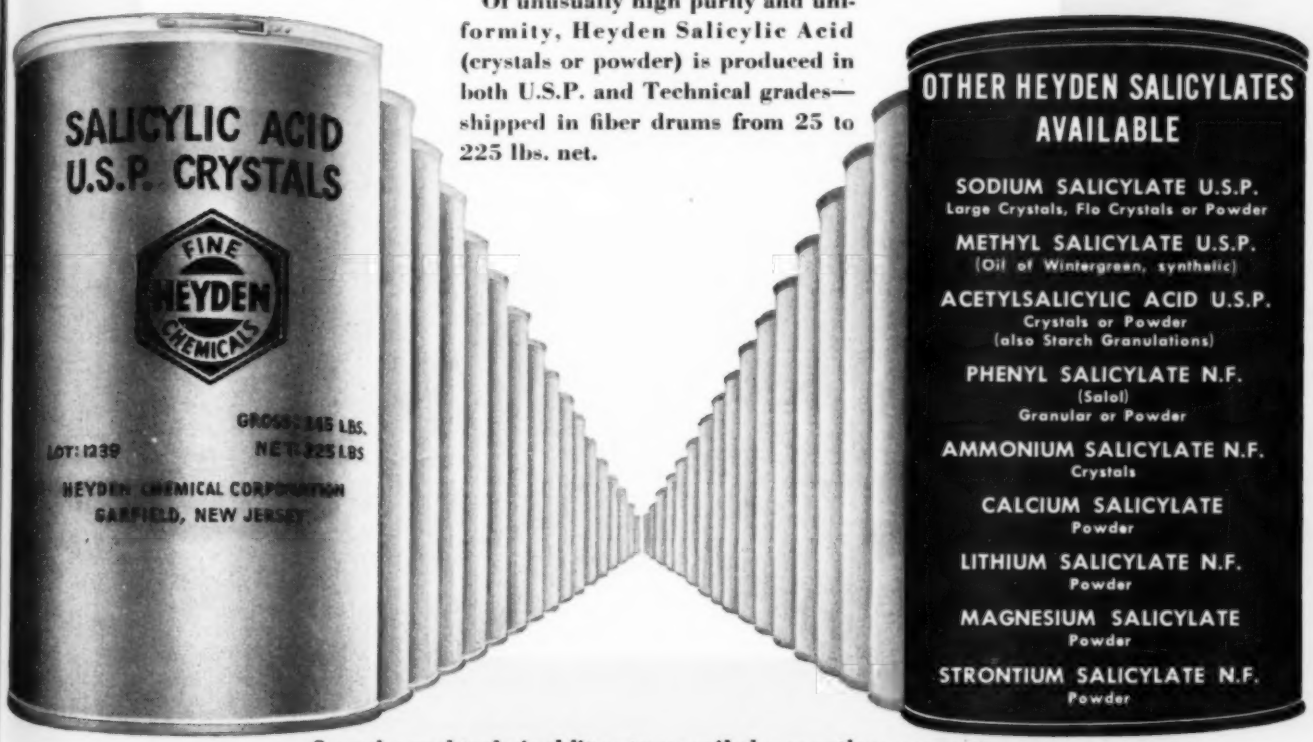

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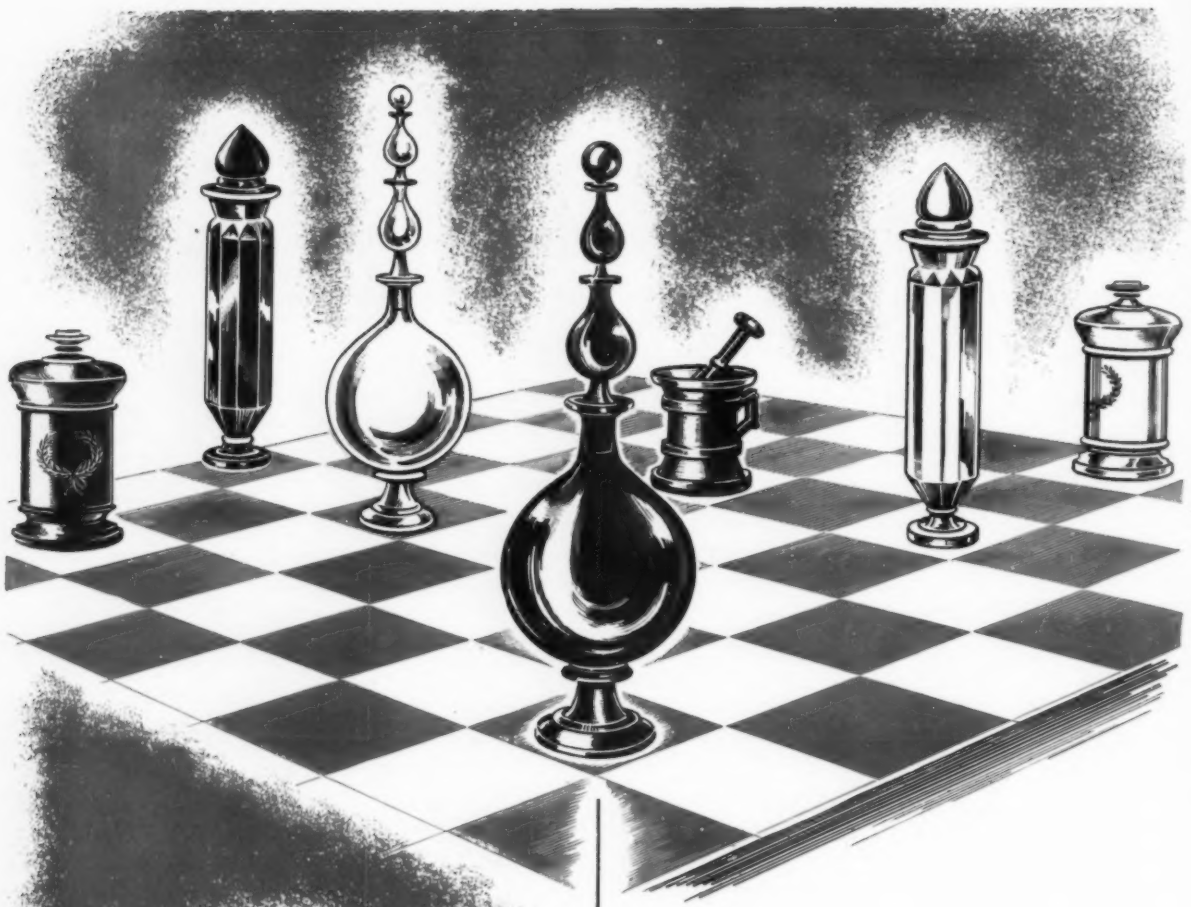

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Dr. Rieveschl Honored by Detroit

Dr. George Rieveschl, Jr., 34-year-old director of chemical research for Parke, Davis & Co., has been named Detroit's "most outstanding young man of the year." He received the Award from the Detroit Junior Board of Commerce, as a result of outstanding community service, leadership and character.

Dr. Rieveschl was primarily responsible for the chemical work on Parke-Davis' product, Benadryl, first antihistaminic to be made available for the treatment of hay fever and other allergies.

DR. GEORGE RIEVESCHL, JR.

TGA Convention Plans

The Toilet Goods Association has announced preliminary plans for its 16th annual convention to be held on May 15, 16, and 17 at the Waldorf-Astoria Hotel. Karl Voss, chairman of the convention committee for 1951, has announced that A. R. Ludlow, Jr., U. S. Industrial Chemicals Corp., is treasurer of the committee, which includes the following members: Roy Brown, Jr., Wheaton Glass Co.; Paul Forsman, C. H. Forsman Co.; P. E. Haebler, Goldschmidt Chemical Corp.; M. Lemmermeyer, Aromatic Products, Inc.; F. J. Lueders, George Lueders & Co.; Ivar W. Malmstrom, N. I. Malmstrom & Co.; Lamson M. Scovill, Scovill Mfg. Co.; and J. H. R. Stephenson, Givaudan-Delawanna, Inc.

There will be a golf tournament at Winged Foot Club, Mamaroneck, on May 18, the day after the convention.

Special Milk Prods. Changes Name

Special Milk Products, Inc., distributors of ethical preparations, have changed their corporate name to Jackson-Mitchell Pharmaceuticals, Inc., in honor of Harold H. Jackson and E. D. Mitchell, who established the business in 1934. There is no change in ownership, management, or policy.

Pfizer Promotions

Thomas G. Bradley has been promoted by Chas. Pfizer & Co., Inc. from acting eastern regional manager to the position of assistant sales manager of the antibiotics division. He moves into the vacancy created by the appointment of Fred C. Sands as director of training, antibiotics division.

George Guess, who has been southeastern district manager in Atlanta has been named eastern regional manager, with headquarters in Brooklyn, while Robert Bittner, formerly professional service representative in Memphis, has been named to the Atlanta post.

Dr. W. Alan Wright, formerly associate director of clinical research at Schering Corp., has joined Pfizer as director of medical service in the Antibiotics division.

Jeffery Named Matchabelli V.P.

William P. Jeffery Jr. was elected a director and vice-president in charge of sales at a recent meeting of the board of directors of Prince Matchabelli Inc. He joined the company a year ago as sales manager and had previously been Canadian manager of the Vick Chemical Company.

WILLIAM P. JEFFERY

Starts 61st Year with Lueders

Edward V. Killeen was guest of honor at a dinner tendered to him at the Montauk Club, Brooklyn, January 28, by the officers and directors of George Lueders & Co., in honor of his sixty years' association with the company. Mr. Killeen in turn gave a luncheon for his associates a few days later at the Drug & Chemical Club.

A few days earlier John Uttermark was accepted in the Veterans' Organization of George Lueders & Co. as the forty-seventh member when he completed twenty-five years with the company. He has charge of the distilling of oils and spices in the Lueders factory in Brooklyn.

Merck Buys Magnesium Prods. Corp.

Merck & Co., Inc. has purchased the business and assets of Marine Magnesium Products Corp. South San Francisco, Calif., for 35,000 shares of Merck common stock, according to George W. Merck, chairman of the board of Merck, and Robert E. Clarke, Marine president. The purchase agreement was submitted to Marine stockholders at a special meeting on February 7.

Merck has been interested in establishing manufacturing operations on the Pacific Coast for many years and selected the Marine Magnesium Products Corp. an old, established company, whose facilities it can immediately use and eventually expand. It is Merck's intention to engage in more active research and development of new products as well as to provide additional manufacturing operations in the South San Francisco plant. At present there are no definite plans for construction of additional production facilities in that location.

Mr. Clarke, founder of Marine Magnesium Products Corp., will continue in active association with the operations as director of the new Merck division, as will the staff and employees.

A warehouse and distribution depot operation has been maintained by Merck & Co. in Los Angeles since 1944 for its medicinal products. This branch will continue to operate independently of the South San Francisco plant.

Clark Joins Mallinckrodt

Robertson B. Clark has been added to the executive sales staff of Mallinckrodt Chemical Works and will be assigned specific duties later. Mr. Clark had formerly been president of the Clark Drug Co., Phoenix, Arizona, and prior to that, had been associated with Cutter Laboratories.

ROBERTSON B. CLARK

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AROMATICS VERONA DIVISION

Named V.P. Bristol-Myers

William M. Bristol, III, manager of the Bristol-Myers plant at Hillside, N. J., has been appointed vice-president in charge of production for Bristol-Myers products division. He has been manager of the plant since 1949, prior to

WILLIAM M. BRISTOL III

which he had been associated with Bristol Laboratories, Syracuse, and Sun Tube Corporation, in executive production positions.

Davis & Geck Appointments

Dr. David F. Smith recently joined Davis & Geck Inc., a subsidiary of American Cyanamid Company, as director of development. He will be responsible for the development of new products.

Roland A. Sherwood has been appointed assistant to the general manager of Davis & Geck, according to C. P. Collins, vice-president and general manager.

Joins R. Peltz Co.

Robert S. Bogatin has joined the sales staff of the R. Peltz Company, Philadelphia representative of P. R. Dreyer, Inc.

Bobst Pharm. Offers New Products

The Bobst Pharmacal Co., Inc. last month began distributing pharmaceuticals especially created to deal with health problems of the aged and aging. They were distributed through pharmacies in the New York Metropolitan area and later in the Los Angeles and San Francisco areas.

Twenty-five specially selected representatives, according to E. Walton Bobst, president of the company, are pioneering the sales of these pharmaceuticals, obtainable only through doctors' prescriptions. These men have just completed a ten-weeks' seminar in the medical and social background of Geriatrics.

The products which have been released include Vimone, a preparation for the management of nutritive-hormone deficiencies in the aging male; Theo-nitral, for the treatment of hypertension, angina pectoris, and difficulties in night breathing; Gelazyme, for aiding stomach distress and intestinal digestion; Cellusena, for improving intestinal function in the aged and aiding elimination; Theo-lipo, a research compound for the aging heart patient; and Acetycol, for the relief of pain, and for increasing motion range in arthritis, rheumatism and related disorders.

Honored by Ill. College of Pharm.

Charles R. Walgreen, Jr., of Chicago, has been honored by the Advisory Committee of the University of Illinois College of Pharmacy in appreciation of his services during the past five years. Dr. A. C. Ivy, vice-president of the University of Illinois in charge of the Chicago Professional Colleges, presented a scroll to Mr. Walgreen at a recent luncheon ceremony.

With Dow Chemical

Edward A. Sampierre has been assigned to the technical service and development department of the Dow Chemical Company for liaison work between the company and the pharmaceutical industry.

EDWARD A. SAMPIERRE

Foragers' 54th Annual Banquet

The Foragers of America held their 54th annual banquet on January 6, with about 100 attending. R. S. Arcularius of Alexandra de Markoff, was guest of honor and Hugh Finn, toastmaster. Speakers included Joseph Keho, president of Dorothy Gray, and president of the Toilet Goods Association; Herman Brooks, president of Alexandra de Markoff, and past president of T. G. A.; Paul H. Douglas, past president of Bourjois, Inc., and also of the T. G. A.; Tom Johnson, vice-president, R. H. Macy & Co.; Robert Fisk, formerly Buyer for Saks Fifth Ave.; C. R. Keeley, vice-president BEAUTY FASHION and Henry Lotz, Buyer, Food Fair, Philadelphia. Additional speakers included the following past presidents of the Foragers: William M. Nielson, Joseph V. Gaitlan, Martin F. Schultes, Aaron R. Chisholm, and Arthur J. Connolly.

Fifty-fourth annual banquet of the Foragers of America, held at the Astor Hotel, New York. R. S. Arcularius was guest of honor.

Julio R. Matheu, left, Guatemalan distributor for Schering products, meeting with Jay R. Hunt, center, manager of the international division of Schering Corp., and Louis Duran, Schering correspondent for Caribbean Area, to discuss introduction of new products in Guatemalan market.

Alvin E. Smith, vice-president and sales representative of Roure-Dupont Inc., who marked 25th year with the company last month.

Henriques Promoted by Breon

B. C. Henriques has been promoted from sales representative of the George A. Breon & Company to district manager, covering California and Arizona, according to C. B. Drolsbaugh, vice-president in charge of sales. He replaces E. S. Petersen, who is ill, but will remain with the firm in another capacity.

Will Tour South America

Maurice Cola, consulting chemist for Roure Bertrand Fils, Justin DuPont France, and Roure Dupont, Inc., New York, has been in New York for several weeks preparatory to an extended trip through South America. He will visit clients of his firm in most South American countries and expects to return to New York in July.

Dr. Guenther Returns from Trip

Dr. Ernest Guenther, vice-president and technical director of Fritzsche Brothers, Inc., has returned to New York following a four months' trip to the West Indies, Mexico, and Central and South America.

Soc. of Perfumers Elections

Fred W. Fielding, Synfleur Scientific Laboratories, was elected president for 1951 of the American Society of Perfumers, Inc. during the annual meeting held at the Advertising Club in New York. Additional officers elected include Albert Dillinger, Van Ameringen-Haebler, Inc., as vice-president; William H. Barlow, Orbis Products Corporation, secretary; R. B. Houk, Dodge & Olcott, Inc., treasurer; and Frank Spitaleri, Polak's Frutal Works, Inc., as a director for three years.

FRED W. FIELDING

Economic Mach. President Retires

Andrew J. B. Adams, president and general manager of the Economic Machinery Company, Worcester, Mass., division of Geo. J. Meyer Manufacturing Company, Cudahy, Wis., retired from the company December 30, 1950. He is succeeded by Ernest A. Oliver who was associated with the Geo. J. Meyer organization for many years.

McKesson Plans Calif. Building

McKesson & Robbins, Inc. is planning construction of a new office and warehouse building in North Hollywood, Calif.

Visits Schering Corp.

Julio Matheu of Guatemala City, distributor of Schering Corp. products in Guatemala for a number of years, recently visited the home office in New Jersey. He met with Jay R. Hunt, manager of the International division, and Louis Duran, correspondent for the Schering Caribbean area. He also discussed the introduction of new products in the Guatemalan market with Francis C. Brown, Schering president, and Dr. John N. McDonnell, vice-president.

Becomes Eimer & Amend Division

Eimer and Amend, which for the past ten years has been a part of the Fisher Scientific Company, became the Eimer and Amend division of Fisher Scientific Company on January 1. This was done solely as a matter of convenience in operation.

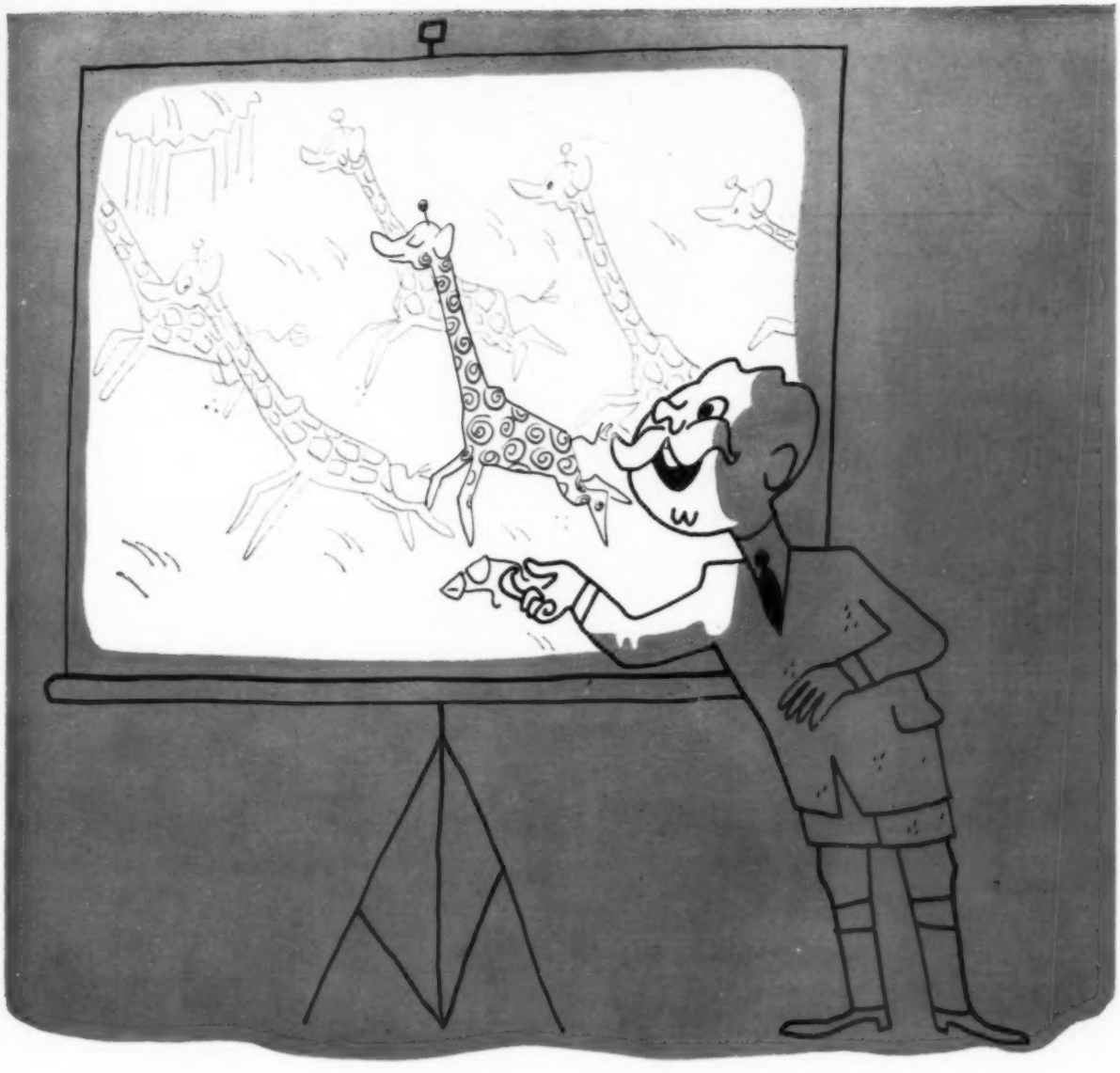
Lohrberg Named Wampole Pres.

Royland O. Lohrberg was elected president of Henry K. Wampole & Co., Inc. at the annual meeting of the board of directors. A. A. Mahony was re-elected vice-president and secretary, while Albert S. Downing was re-elected treasurer.

Chicago Perfumery Ass'n Elections

Benjamin Bridge, Jr., president of the Bridge Chemical Company, Inc., was elected president of the Chicago Perfumery, Soap and Extract Association and was installed at the monthly luncheon on January 9. Other new officers include Charles E. Arch, Sheffield Tube Corporation, as vice-president; Ellis Johnson, Hazel-Atlas Glass Co., secretary, and Z. D. Sappenfield, Allen B. Wrisley Co., as treasurer. L. F. Haznaw, Florasynth Laboratories, Inc., Chicago division, was appointed to the public relations and publicity committee of the Association.

BENJAMIN BRIDGE, JR.



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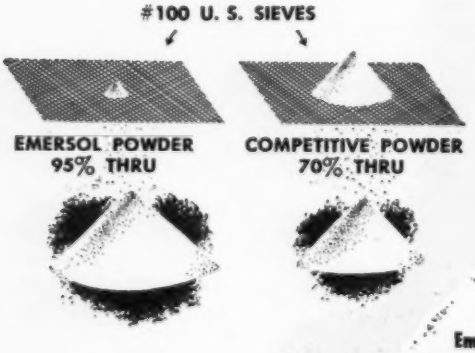

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Ecclestone Chemical Co., 2673 Guoin, Detroit 7, Michigan

Magnus Sales Conference

Magnus, Mabee & Reynard, Inc. held a 4-day conference of the sales, executive and technical staffs from January 3 to 6 at the Hotel Belmont Plaza, New York. More than a hundred representatives, technical experts and executives of the firm gathered from all over the United States. Dr. Arthur H. Downey, vice-president and director of technical research, conducted the 4-day session which covered new developments in the use of essential oils and allied products.

Percy C. Magnus, president, at the conclusion of the conference, predicted a banner year for the company, in spite of the impending shortages of many important essential oils from primary producing areas in the Far East and Russia.

The Conference was concluded with a dinner presided over by Robert B. Magnus, vice-president. During part of the ceremony, J. B. Magnus, vice-president, revealed some interesting facts from the archives of the company dating back to 1895. One of the highlights of the dinner was the induction of Dom Bellavigna, company superintendent of production, into the 20 Year Club.

Dermetics Plans Move to N. J.

Dermetics Inc. has signed a 20-year lease for three acres and a new manufacturing plant in the 150-acre Styertowne coordinated residential, business, and industrial community in Clifton, N. J. Dermetics plans to move its entire Rockefeller Plaza office staff to the new quarters when they are compledted by mid-summer. Additional personnel for the offices and laboratories will be drawn from the immediate Clifton area.

Named Directors of Bristol-Myers

Robert B. Brown, a vice-president of Bristol-Myers Company and president of the products division, and Frederic N. Schwartz, president of Bristol Laboratories Inc., have been elected directors of Bristol-Myers.

ROBERT B. BROWN

FREDERIC N. SCHWARTZ

Faberge's New Town House

Faberge Perfumes, Inc. recently opened its new Town House at 5 West 54th St., New York, which houses the showrooms, sales and promotion departments.

Calif. Cosmetic Ass'n Elections

Merton W. Taylor of Avon Products Inc. was installed as president of the California Cosmetic Association at its installation dinner on February 9, succeeding Carl Mitchell of "42" Products Ltd. At the same time the following members took office: Gene Salee, Gene Salee Inc., 1st vice-president; John E. Danley, Merle Norman Cosmetics, 2nd vice-president; A. C. Schaefer, the Glenway Co., secretary; Lucile Bullock, Physicians Formula, treasurer; Gail B. Selig, who continues as counsel; and Lillian D. Nelson, who remains executive secretary.

The trustees include Alan Coghlan, Nethercutt Laboratories; Davis Factor, Max Factor & Co.; Arnold L. Lewis, Howe-Lewis Inc.; Henry W. Miller, Henry W. Miller Cosmetic Co.; Carl Mitchell, "42" Products Ltd.; Edward Petersen, Felton Chemical Co.; H. R. Schmidlapp, Shor Laboratory; and Kenneth C. Simpson, Container Service Co.

Graham Joins Law Firm

John H. Graham, patent and trademark consultant, has become associated with the firm of Fraser, Myers & Manley, New York, which specializes in patent, trade-mark, copyright and unfair competition causes.

Appointed by Anchor Hocking

Ernest E. Allison has been named director of traffic, Anchor Hocking Glass Corp., succeeding I. L. Dunnington, general traffic manager, who died January 22. Mr. Allison had formerly been associated with the Pennsylvania Railroad for the past 26 years.

Magnus, Mabee & Reynard sales and executive staff dinner held on January 6 at Hotel Belmont Plaza, at conclusion of 4-day sales conference.

HERE'S WHAT WE MEAN BY "A CAP FOR EVERY NEED"!

Here you see the complete line of Armstrong's Artmold Plastic Caps. Sizes range from 8 mm. to 100 mm. These caps are every bit as good looking as private mold designs, yet they carry economical, standard mold price tags.

Armstrong's plastic caps meet requirements of all G.C.M.I. standard finishes for bottles, vials, and jars. They are chip and crack resistant. They have a brilliant luster and can be made in a wide range of sparkling colors.

For free samples and prices, or additional information, address Armstrong Cork Company, Glass and Closure Division, 1902 Prince Street, Lancaster, Pennsylvania.

ARMSTRONG'S
Artmold
PLASTIC CAPS

WEST COAST REPRESENTATIVE:
I. F. SCHNIER CO., INC.
SAN FRANCISCO 12 AND LOS ANGELES 7

Demarest Leaves P. R. Dreyer

James V. Demarest severed his connection with P. R. Dreyer Inc. on January 1, in order to devote more time and attention to his personal affairs.

Atlas Becomes Marcelle V.P.

Douglas Atlas has been appointed vice-president of Marcelle Cosmetics Inc. in Chicago, according to Philip L. Blazer, president. In his new position he will assist the president in the direction of sales and management.

DOUGLAS ATLAS

Bonham Pres. of McKelvy

Lewis F. Bonham has been named president of Alfred D. McKelvy Co., subsidiary of Vick Chemical Co., succeeding Richard K. Hines, who resigned, according to Hugh D. McKay, chairman of the board. Mr. Bonham has been merchandising manager at the Mennen Co., and had previously been associated with the Personal Products Corp.

Heads Med. Directors Ass'n

Dr. Delmas K. Kitchen vice-president and chief medical counsel of Bristol-Myers Company, was recently elected president of the Association of Medical Directors of New York.

Fairhurst Leaves Tombarel Prods.

William S. Fairhurst has resigned as vice-president of Tombarel Products Corp., to join the sales staff of Germaine Monteil Cosmetiques Corp.

Added to Polak & Schwarz Staff

Frank J. Micek has been appointed to the staff of the Chicago office of Polak & Schwarz, Inc, where he will serve as technical sales representative to customers in the midwest territory.

Upjohn Names New Advg. Mgr.

J. Curtis Gauntlett was appointed advertising manager of the Upjohn Company on January 1, succeeding Stanley Morris, who retired after thirty years' association with the firm.

STANLEY MORRIS

J. CURTIS GAUNTLETT

Emery West Coast Sales Coverage

L. J. Hadobas has been put in charge of the direct sales and technical service coverage of the West Coast area for Emery Industries, Inc. He will operate out of a newly established branch office at 420 Market St., Tilden Sales Building, San Francisco 11. The complete line of products includes stearic, oleic, and other fatty acids, plastolein plasticizers, Twitchell textile oils, and soluble oil bases.

Kline Receives Procter Medal

C. Mahlon Kline, chairman of the board of Smith, Kline & French, Inc., and president of SKF Laboratories, received the Procter Medal on February 1 from the Philadelphia Drug Exchange at their annual dinner which was held in the Downtown Club, Philadelphia.

Alfred L. Loebenberg

Alfred L. Loebenberg, a chemical engineer, and vice-president of National Aniline Division of the Allied Chemical and Dye Corp. and the Barret Company, died January 27 of a heart ailment. He was 61 years old. Surviving are his widow, Mrs. Anita Mayer Loebenberg; two daughters, Mrs. Carol L. Freedman and Mrs. Dorris L. Brown of Utica, N. Y.; a brother, Max, a sister, Mrs. Mina Bernath, and two grandchildren.

Jeremiah J. Healey

Jeremiah J. Healey, former purchasing agent for Coty, Inc., died January 24 at his home in South Orange, N. J. He had been with Coty for more than twenty-five years before his retirement three years ago.

Charles Nessler

Charles Nessler, originator of the permanent wave process and inventor of false eyelashes, died January 22 of a heart attack at his home in Harrington Park, N. J. He was 78 years old. He gave his first lecture on the theory of waving hair in 1905, and four years later opened a shop in London after leaving his barber-surgeon job in Switzerland. In 1915 he left England and opened a shop on East Forty-sixth Street, New York, where he charged $120 for a permanent wave.

Surviving are two sons, Charles Jr. of Larchmont, N. Y., and John Nessler of Pittsfield, Mass.; and two daughters, Rosa Nessler of New York, and Mrs. William Switzer of Charleston, West Virginia.

W. T. Rawleigh

W. T. Rawleigh, founder and president of the W. T. Rawleigh Company, manufacturer and distributor of medicines and household products, died January 23 at the age of 80. He began selling bottled medicines and other household items at 18 in Stephenson County, Ill., and six years later, in 1895, incorporated his company, remaining president throughout his career.

John A. J. Wynmalen

John A. J. Wynmalen, chairman of the board and former president of Polak & Schwarz, Inc., died on January 24 following a short illness. He was 63 years old. He started his association with the company thirty-five years ago in Holland, soon after which he came to the United States. In 1935 he was named president of the newly established branch in New York, and in 1946 he was named chairman of the board. He is survived by his wife, Kathryn.

MANAGEMENT FORUM

By Francis Chilson
Industrial Consultant

Budgeting

It is my considered conviction that detailed budgeting is the most futile, time wasting process that has ever fouled up progress in American industry. As it is practiced generally it is not constructive; it wastes an immense amount of time on the part of executives of every grade; it is a prime cause of bickering, backbiting and rotten politics.

No budget ever sold a dollar's worth of goods.

No budget ever manufactured a pound of finished product.

No budget ever assured the success of any company. No budget every prevented major losses.

No budget ever actually controlled unit costs.

Now, I have no quarrel with the basic idea of budgeting. It is plain common sense to attempt to forecast sales income and then to allocate that income as accurately as possible to major expenditures such as labor, factory expense, selling and administration expenses. But I quarrel vehemently with the practice of dividing and subdividing and then redistributing the subdivisions. I have seen budget reports for relatively small companies that were so damn detailed that the report looked the size of Webster's unabridged dictionary. I quarrel with the thinking which finds it necessary not only to set up a budget for the operation of a first aid department but to establish a budget for the pusipads that are distributed free in that department. I quarrel with the thinking which causes a budget to be so detailed that innumerable departmental expense charges amount only to pennies when tabulated on a monthly report.

Budgets are advocated by accountants to keep accountants busy. Theoretically they are set up to anticipate the future and to control current expenditures in accord with the forecast.

Actually the divisional or departmental budget reports are merely records of past history and often reach responsible executives too long after the event to accomplish any constructive purpose. I have seen budget reports sent out six and eight weeks after the close of the periods they were expected to control. What the hell good are reports like that?

I have seen equipment and buildings neglected to the point indeed where major repairs became necessary simply because so much hell was raised when previous repair and maintenance charges had gone over the budgetary limit.

I have seen rejects increase because of dust contamination from scaling paint which could not be corrected because the paint budget was overspent.

I have seen hundreds of instances where department heads refused to cooperate with each other because the small amount of labor or expense that might be involved would look bad in their budgets.

Too many plant managers, salesmanagers and office managers are working by implication on the theory that it is more important to meet the budget than it is to operate their departments as they should be operated. If their budgets balance they are regarded as efficient operators whereas the opposite is very often the actual case.

The other day I raised hell with a plant manager who had not been through his plant in two weeks. Do you guess what he was doing? Budgeting for next year of course. Throughout the trade wherever detailed budgeting is practiced, damn little important work is done after November fifteenth because executives are gazing into crystal balls trying to guess the amount of money needed for particular expense categories. When they've arrive at guesstimates that look reasonable they add a clip because they know that however accurately they try to forecast expenses, the budget committees will cut the estimates down.

Of course all the estimating requires a hell of a lot of meetings. When finally the budget is finished and approved the meetings are repeated monthly or oftener throughout the year. What price meetings? If you could see, as I have so often, what goes on in plants

To give it a custom look that sells on sight, add a clever closure and label to stock bottle #A-8478.

SPRUCE UP with no mark-up

Now you can spruce up your line . . . give it a family resemblance and *still* keep within commercial limits on container costs.

HOW? Pack in Duraglas stock-mold bottles personalized for you with unique color treatment, individual closures and eye-stopping labels.

Owens-Illinois manufactures more than 1400 different stock-mold bottles . . . maintains a highly talented staff of packaging designers who can help you create an unusual package at no extra cost.

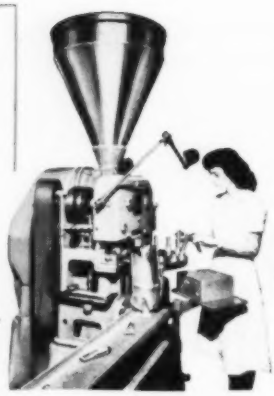
Decide now to find out how creative know-how applied to low-cost stock-mold containers can work for you at the point of sale. Call your local Owens-Illinois office today.

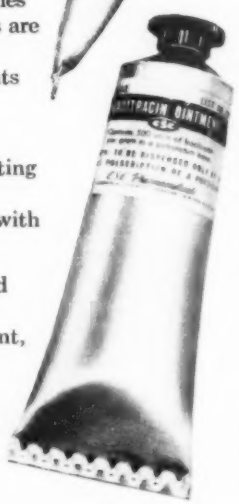
Duraglas bottles are protectors of quality

TRADE MARK REG. U.S. PAT. OFF.

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

BACITRACIN tabletted... tube-filled... by C.S.C. Pharmaceuticals





C.S.C. Pharmaceuticals Bacitracin Troches and Oral Tablets are produced on Stokes tabletting machines by C. S. C. Pharmaceuticals, a division of Commercial Solvents Corporation, at their Terre Haute, Indiana plant.

The Bacitracin tablets are uniform in size and density, accurate in weight, and of finest finish. Stokes tabletting machines are high-speed, high production units which turn out tablets in all sizes, in round and special shapes, with plain, engraved or embossed surfaces.

At the same plant, Bacitracin Ointment is tube-filled, closed and sealed on Stokes 90-D tube-fillers . . . known for their speed, durability, ease of cleaning, accuracy of measurement, perfection of seal, and rapid adjustment for change of tube size or material.

For tablets or ointments . . . Stokes pharmaceutical and auxiliary equipment are foolproof . . . flexible . . . easily operated . . . producing efficiently at low cost for years at top capacity.

Send for your copy of STOKES PHARMACEUTICAL EQUIPMENT catalog . . . it describes Stokes machines for profitable pharmaceutical production.

STOKES MAKES Tabletting Machines, Pharmaceutical Equipment, Tube Fillers, Vacuum and Special Processing Equipment, Vacuum Pumps and Gages, Plastics Molding Presses, Water Stills and Special Machinery.

F. J. STOKES MACHINE COMPANY

5932 TABOR ROAD

PHILADELPHIA 20, PA.

F. J. Stokes Machine Co.
5932 Tabor Road
Philadelphia 20, Pa.

☐ *Send me a copy of STOKES PHARMACEUTICAL EQUIPMENT*

☐ *Send me a copy of STOKES TUBE FILLING EQUIPMENT*

Name _____ Title _____

Company _____

Address _____

City _____ Zone _____ State _____

when the bosses are in budget meetings getting hell because last month their expenditures for indirect labor went over the budgets by $16.42, you'd realize that detailed budgeting can be anything but constructive.

If you happen to be a company president reading this you undoubtedly are saying to yourself, if you have a budget, "It doesn't happen that way in our organization." And my answer is "To hell you say!" Men at the top always see things from the top. They do not see the entangling roots of red tape that dribble down through the organization and befoul the works.

Budgetary practice is passing through the same evolution that cost accounting has passed through. Some day I hope it will simmer down to a rational basis and when it does it will be useful as a management tool.

To my mind it is silly to budget items of expenditure which of their nature are not controllable by any means, such as real estate taxes, insurance and depreciation, which would go on even if the company didn't sell a pound of goods. The same applies to material purchases. When the income forecast has been made, all uncontrollable expenditures should be set aside and the net controllable figure arrived at. This figure represents wages and salaries, factory expense, advertising and distribution expense, administration etc. Then each divisional manager should be given a budget in total for his division. Uncontrollable expenditures for materials can be regulated through the purchasing department in a very simple manner.

The single purpose of management is to maintain a stable and profitable organization. In the majority of cases in the drug and cosmetic industry the management of well organized companies can tell instantly from their sales figures alone whether or not a satisfactory profit is being made. They know where their break-even points lie. But when you find as I did recently a company, well organized and well managed, which for several years has enjoyed a cost of sale of less than 25 per cent going in for detailed budgetary control something is wrong with top management thinking.

Many companies get into detailed budgeting because their bankers insist upon it. A banker is a person who knows everything about money and nothing about the mechanics of business management and even less about handling people. When a banker has his hand in your pocket, it reassures him to know that you have not only predicted your income but also your expenses to the penny! Bankers often confuse figures with facts as so many accountants do.

Many of the least profitable and poorly managed companies with which I have come into contact have the most elaborately detailed budget systems. Many of the best managed and most profitable companies I have been in contact with have never had any formal budgetary system at all. And in fairness it must also be admitted that a number of the very profitable companies with which I have been in contact have had elaborate budget systems. In no case however has a budget system ever been the prime cause of profitable operation; in no case has a budget system ever prevented a major loss from operations.

A budgetary control system is nothing more than a management tool. It is a necessary and useful tool when properly conceived and handled and a damn nuisance when it isn't—which unfortunately is most often the case.

Industrial Printing Plants

Many firms in the trade still are operating their own printing plants. In some instances these plants are extensive in scale and elaborately equipped. It has been my lot in the past to cause the discontinuance of a considerable number of privately operated printing plants on the demonstrable ground that it rarely pays to operate even a simple jobbing shop, and it never pays to operate a complete printing plant, especially when multi-color work is involved. But don't think that it is an easy task to persuade management to quit kidding itself about the economics of operating a printing plant! And it is even more difficult to persuade sales and advertising managers that their beloved print shop should be discontinued.

There is a good reason for the reluctance of sales people to discontinue the shop: they can make as many mistakes or changes as they wish in preparing copy and the cost of making all these changes is concealed in the overhead. When a printing job is sent outside all changes have to be paid for.

Some firms continue their shops and insist that their own printer bid against outside sources for each new job. Their own printer of course has ways and means of finding out what the outside bids are before he submits his own costs, and if he is made to submit his own costs first he can always juggle labor and material charges so that his costs are lower than competition.

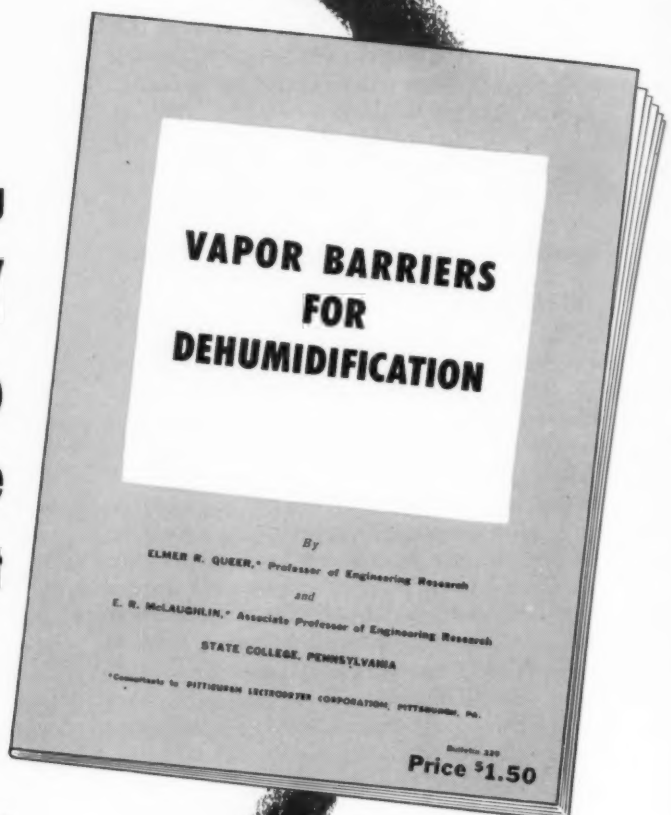
Time after time attempts have been made to prove to me that outside costs are always higher. But when the outside bids are examined it invariably turns out that the bids came from inadequately equipped shops.

Most purchasing agents do not know how to buy printing. Printed matter cannot be bought competitively unless the buyer knows in detail the equipment of the bidder. If a bid on four-color work is wanted the buyer must know that the bidder has four-color presses. If he has only flat bed presses the work will have to be run four times. If he has two-color presses the work will have to be run twice. The same thinking applies to auxiliary equipment such as stitchers, folders, punchers, linotype equipment etc.

In privately owned print shops no charge is usually made for down time and in many cases overhead in print shops is distributed as a percentage on labor which is ridiculous. In one case I found that no overhead at all was being charged to the print shop! No wonder it could compete!

Fundamentally there is no more reason for doing your own printing than there is for making your own

telling you **HOW** to keep moisture out



"What road blocks can we erect against infiltration of moisture into areas we're trying to air-condition?" Lectrodryer's new Bulletin 220 names insulating materials, gives moisture permeability data, shows how to figure dehumidifier loads.

Control humidities in manufacturing and processing areas to keep production going at top speed and maintain high product quality—in storerooms to preserve raw and finished materials. Lectrodryers provide low humidities efficiently and economically.

In England: Birmingham Electric Furnaces, Ltd., Tyburn Road, Erdington, Birmingham.
In Australia: Birmingham Electric Furnaces, Ltd., 51 Parramatta Road, Glebe, Sydney.

We will gladly send a copy to those who request it on their business letterhead, or you may use the coupon—

3rd IN A SERIES

to help you guard against WETth; moisture you can't see or feel. You may have copies of these other two technical papers also.

LECTRODRYER

REGISTERED TRADE MARK U. S. PAT. OFF.

Pittsburgh Lectrodryer Corporation
309 32nd Street, Pittsburgh 30, Pa.

Please send me Bulletin 220, "Vapor Barriers for Dehumidification".

Also send
"The Moisture in Our Atmosphere" ( )
"The Performance of a Solid Adsorption Dehumidifier" ( )

Name_____

Title_____

Address_____

set up boxes, cartons, caps, bottles or collapsible tubes. When you dig into the reasons for the operation of such a shop you invariably find that twenty-five or more years ago no printing establishment capable of giving service existed in or near the town, so the management decided to go into the printing or box making business. (In one instance I found that the reason for operating an extensive box shop was that during World War I the company had been unable to get a sufficient supply of boxes. So it went into the printing and box making business).

So you're in the printing business. If your printer is a bum your cost will be apparently way out of line assuming you calculate costs correctly. If your printer is really a good one he will strive mightily to make his job and his department more important. Hence he will produce figures to show what he could save if he only had a new linotype machine. Since figures don't lie although liars sometimes figure, you fall for the persuasive story. A little while later the printer turns up with more figures to substantiate his need for a two-color press. He proves from the figures (from which all down time is omitted of course) that if he had such a press he not only could save a lot of money on the work he is now running but he could take on a lot of the work you now are sending outside. Moreover he could give you two colors on the printed matter for which one color up to now has been satisfactory and he can do this at no extra cost. Everybody likes to get that extra touch for nothing!

And so the print shop builds up. I have seen plants in which the money invested in the print shop exceeded that of any other department and I saw one instance at least where the investment in print shop equipment exceeded the investment in all the production equipment put together.

There may be a few isolated cases where printing and even box making pays. Private label plants where very small runs are the rule rather than the exception, and plants isolated in very small towns, may find that regardless of cost they have to operate their own printing establishment because they cannot get sufficiently prompt service any other way. But such instances are rare. Printing as a rules does not pay.

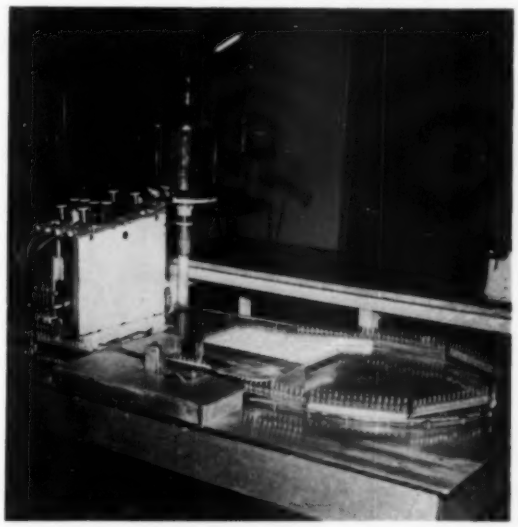
The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Gang Filling and Sealing of Ampuls

Metropolitan Laboratories Inc., Oyster Bay, N. Y. now have a "do-hickey" for filling and sealing 1 and 2 cc. size ampuls at a speed of 8,000 ampuls per hour.

The speed of the washing unit for the 1 and 2 cc. size is 12,000 per hour using two operators. One operator loads the ampuls from the shipping box into the handling plates and the other oprator runs the washing machine. They are building a new washing machine with fully automatic cycling which will enable the machine operator to keep two washing machines going at or near full capacity.

The filling and sealing machines which they are now using requires the operator to remove one row of sixteen ampuls in a specially designed clip and place the clip into the feed mechanism on the machine. At the present time another operator is required to remove the ampuls from the clip, which we have found is a waste of time. They are now building new filling and



sealing machines for fully automatic operation. A girl will place a plate full of ampuls (one gross) on the feed mechanism and the ampuls will be carried through the filling and sealing stages and at the end of the line will be either dumped into a basket (small ampuls) and the large ampuls will be pushed out on a flat table to prevent breakage. With these new filling and sealing machines one operator should be able to handle the whole job without any outside help. The machine in use is turning out ampuls at a rate of speed of 8,000 per hour and doing it better than any other method or machine they know about.

For the past six months Metropolitan has been running 1 cc. ampuls of distilled water for one of the antibiotic manufacturers, in lots of 100,000 to 500,000 ampuls. Losses average 4 per cent, which may be broken down approximately as follows:

Faulty seals (due to the ampul height in the clips not being uniform) about 2 per cent. They expect to eliminate this objectionable feature in the machines now being built.

Losses due to breakage in the machines about ½ per cent.

Losses due to floating particles about 1½ per cent.

Since Metropolitan is using ampuls with heavy glass stems and fully glazed tips our losses due to glass particles is practically zero.

During recent years a number of companies that manufacture ampul equipment as well as producers

Cut Costs of Packaging

POWDERED and GRANULAR MATERIALS

Clean, Fast, Accurate

The dust collector hoods and drip-free shut-off gates at the filling stations of the Model JN insure clean operation. Its fully automatic features provide filling speeds up to 120 containers per minute. And it is built for accuracy — maintains the closest possible commercial tolerances — can be quickly adjusted by the simple turn of a knob to control weight variations due to change in product density.

With a Fully Automatic Model JN Packer, Filler, Packer-Weigher

Used as a Volume Packer, or Volume Filler, or Packer-Weigher, the fully automatic, four station Model JN fulfills every advanced requirement in the handling of a variety of packaging problems — will operate on most types of dry powdered or granular materials, using round, square, rectangular or irregular containers with equal facility.

Entering the machine in single line, containers are automatically separated into two lines progressively and, after being filled, are re-grouped into a single line for hand or automatic closure.

The Model JN may be equipped to fill at all four stations if reasonable weight variations are permissible; otherwise, containers are bulk filled at first two stations and accurately weighed at the last two stations.

Once it is put into operation, the fully automatic features of a Model JN Filling Machine plus its speed, accuracy and clean operation quickly return the machine's purchase price through savings in labor costs alone.

It will pay you to get full details concerning how the fully automatic Model JN can cut your packaging costs. Write today.

US

NET & GROSS WEIGHING ★ PACKAGE FORMING & FILLING ★ CARTON SEALING, LINING, WRAPPING ★ BOX MAKING

AUTOMATIC BOX MACHINERY CO., INC.

Owning and Operating NATIONAL PACKAGING MACHINERY CO. ★ CARTONING MACHINERY CORP.

45 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

Branch Offices: New York ★ Cleveland ★ Chicago ★ San Francisco (Mailler Searles, Inc.)

of ampul solutions have found that higher speeds as well as better finished products can be obtained only through the use of mass handling techniques and equipment such as the handling plate carrying gross lots of ampuls. This method was developed by Metropolitan which claims patent applications pending on the methods as well as the machines. We expect to enforce these rights in all instances, which may make development work along these lines unprofitable for other companies.

Chill-Vactors

The largest steam jet refrigeration unit ever built for making pharmaceuticals—a 900-ton-capacity installation—was completed recently by Croll-Reynolds Co., Inc., specialists in the manufacture and design of steam jet vacuum equipment, at the Groton, Conn., plant of Chas. Pfizer & Co., to aid that company's process for manufacturing antibiotic drugs of higher quality.

The record-size steam jet vacuum unit gives refrigeration service comparable to the use of 900 tons of natural ice a day. The manufacturer, whose sales offices are located at 17 John St., N. Y. 7, says that the equipment is more than four times larger than the average size refrigeration machine used in industry. Most industrial refrigeration units are for capacities of 100 tons or less. The new machine allows precise temperature control and is used to regulate the temperature of fermentation in the manufacture of antibiotics.

Croll-Reynolds Co., Inc., calls these vacuum refrigeration units "Chill-Vactors." They provide, for intermediate temperatures down to 32°F., most economical cooling, both from the standpoint of initial cost and maintenance.

Chill-Vactors work on the principle of permitting water, aqueous solutions or any volatile liquid to evaporate under high vacuum and without heat from an outside source. By this method, enough BYU's can be removed to chill liquids down to freezing point and lower.

The units are economical because water takes the place of expensive refrigerants. Since the equipment has no moving parts, it is easy to operate and maintain.

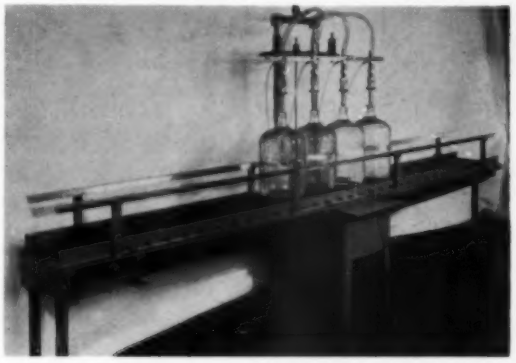
Among the other applications for which this equipment is used all over the world are: chilling water for condensers, cooling rolls, absorption towers, gas coolers, drinking water systems, air conditioning, and other processing equipment.

They also can be used for direct cooling of mother liquors in crystallizers, and of such solutions as milk, whiskey mash and similar materials. Even solids can be cooled by this method with a much better heat transfer coefficient than by circulating brine or chilled water. It is only necessary to provide the proper vacuum and capacity and wet the surface to be cooled. Two large installations in California each cool many carloads per day of lettuce and other vegetables.

Filling Machine With Conveyor

Perl Machine Mfg. Co., 68 Jay St., Brooklyn, N. Y., announces the newest in its line of machines, a "5-gallon bottle-jug-can filling machine with conveyor." This machine has special automatic filling valves, either in stainless steel or nickel-plated brass, which are suitable for filling by either gravity, vacuum, or pressure. Absolutely uniform and accurate filling levels are assured in all containers with micrometer screw adjustments. Foaming is reduced to a very minimum and an automatic shut-off prevents drip.

In conventional machines overflow starts simultaneously with the actual filling, with a loss of time and loss of product due to excessive overflow. In this Perl



machine, overflow starts only after the desired level has been reached. The result is a great saving in every way.

These new machines are available in a wide range of sizes and models, with from 2 to 8 automatic filling valves and with conveyors 6 to 15 feet long. Machines can be delivered either semi-automatic, requiring but one unskilled operator, or fully automatic, requiring no operator at all. A special pneumatic pump to raise and lower the filling head with the valves makes for much easier operation than the customary foot pedal. Machines can be supplied with either vacuum or gravity filling, as well as with both.

Heavy Duty Paste Mixer

A new model Direct Motor Driven Heavy Duty Paste Mixer of 50, 100 and 150-gallon capacity, #132 has been designed by Charles Ross & Son Company, Brooklyn, N. Y., to reduce to a minimum the labor and mixing time elements in production costs.

Each unit has an individual right angle gearhead motor directly connected to the stirrer shaft, eliminating intermediate parts such as chains, gears and clutches. With a separate motor for each unit, the #132 Mixer offers a far more flexible unit.

As a safety feature, the mixers incorporate an automatic cut-off which stops the stirrers from revolving, without damage to the machine, should a bag or foreign matter fall into the mixer.

Increased mixing efficiency is reported resulting from the greater pitch on the stirrers as they pass between each other at a closer tolerance. This and the fact

(*Continued on page 220*)

1 NEW BENCH-TYPE TABLET PRESS: No. 301 Single Punch, hand or motor operated, for experimental, private formula or limited production work. 87 tablets a minute, uniformly perfect, max. dia. ½", max. depth 7/16".

2 NEW No. 635 MIXER: Direct geared head 3 H. P. motor drive. 35 gal. capacity stainless steel tilting tank 17" wide x 20" high x 28" long. Agitator speed 30 r.p.m. Hinged cover. Rails and tray optional and extra.

3 NEW No. 420 COMBINATION CLOSER AND CRIMPER: Capacity per minute, 40 to 45 tubes up to 1½" dia. and adjustable for length from 2" up to 7".

4 NEW COATING AND POLISHING STANDS: No. 6 for pans up to 30"; No. 16 for pans over 30". Direct geared head motor drive; no belts, no slippage. Shaft mounted with outboard bearings (double bearing area on No. 16).

5 NEW COLTON DRYING OVEN: No. 2030; 20 trays, 30" x 30" x 1". Electric, gas, steam. Double steel shell, full 3" insulation cuts drying time up to 50%. Also new laboratory and truck models.

Arthur Colton Company

Two years ago, when Arthur Colton Company was purchased by Snyder Tool & Engineering Company, every Colton product was critically analyzed by the Colton engineering staff working directly with production men in plants throughout the country.

As a result, a new service set-up was inaugurated, new standards of precision were established, many machines have been re-engineered for higher efficiency, and a dozen new machines have been created to do certain jobs better than they have ever been done before.

Some of these new Colton machines are presented here. Each represents the most advanced engineering and the finest precision in the industry and the highest efficiency in its field. Older machines, offering less, obviously are obsolete.

Detailed specification sheets are available and your inquiries regarding delivery are invited.

Arthur Colton Company

Div. Snyder Tool & Engineering Company
3426 E. Lafayette Detroit 7, Michigan
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Offices in Principal Cities

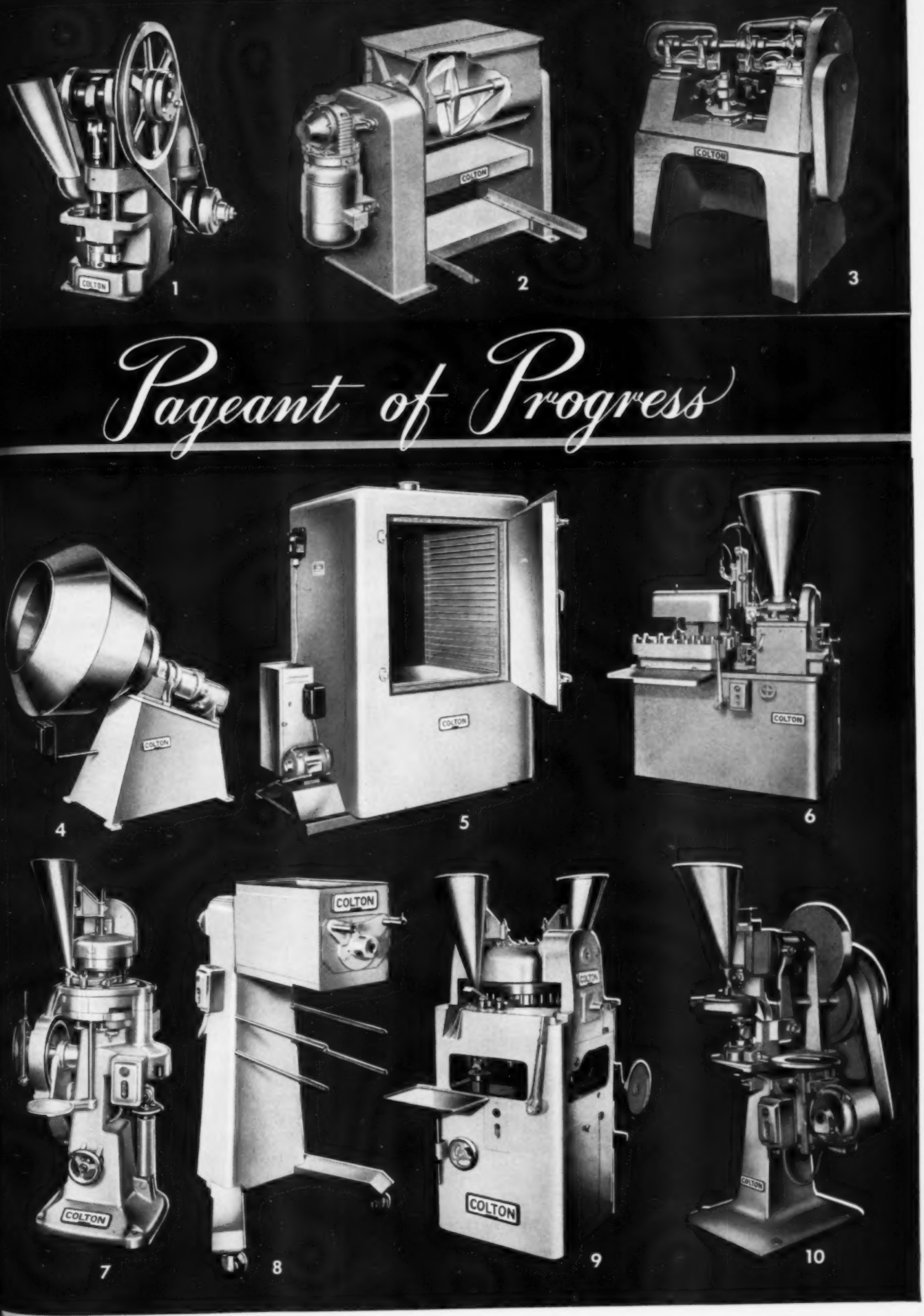
6 NEW No. 175 AUTOMATIC TUBE FILLER: Pastes, creams, liquids and powders. Standard Single, 55 tubes a minute, up to 1½" dia. x 7¼" long; Standard Twin, 85 tubes a minute up to 1¾" x 7¼" long. (Also specials.)

7 NEW No. 216 ROTARY TABLET PRESS: Up to 800 tablets a minute; max. dia. 3/8", max. depth fill 1 1/16"; max. pressure 6000 lbs.; 16 punches and dies easily changed. Precision built. Variable speed drive. Dustproof.

8 NEW ROTARY GRANULATORS: No. 540 Single and No. 544 Double. Continuous rotary granulation gives 50% more production in Single and 250% more in Double, over ordinary granulators. Standard or stainless. Delivers to trays, drums, bags.

9 NEW No. 227 and No. 233 TABLET PRESSES: No. 227 up to 1800 tablets a min.; 27 punches and dies. No. 233 up to 2200 tablets a min.; 33 punches and dies. Both presses: Max. pressure 5,000 lbs.; two stamping stations; variable speed; dust proof construction.

10 NEW NO. 330 TABLET PRESS: Single Punch. Up to 110 tablets a min.; max. dia. 7/8"; max. depth fill 13/16"; max. pressure 15,000 lbs. Standard or variable speed drive. Designed for continuous trouble-free operation.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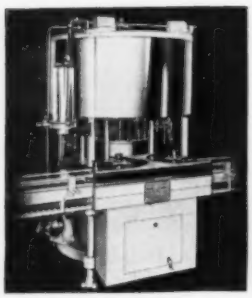

Automatic Filling

Semi-Automatic Filling

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Automatic Air Bottle Cleaning

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Washing, Cleaning also for Ampules

Management Forum

(Continued from page 217)

that the RPMs have been greatly increased give a finer, more homogeneous mix and reduce the time involved in the mixing operation.

These new mixers are built of extra heavy construction to handle the heaviest consistencies or viscosities. At the same time, larger type outlet gates are furnished to facilitate the gravity feed and, opening and closing in a more direct manner, are more easily regulated by the mill hand below.

Mechanical Heart—Lung Device

A new use for the Vanton "Flex-i-liner" Non-Corrosive Pump in a revolutionary heart-lung device that may restore life to persons "clinically dead" by performing all the functions of the heart and lungs was announced recently in the press throughout the world. The Vanton Pump, which has no stuffing boxes, no gaskets, no valves and requires no lubrication, heretofore has found a wide variety of successful applications in many of the leading industries of the country, including chemical, rubber, oil, rayon, food-processing, cosmetics, etc. The new mechanical heart-lung device was produced by the J. J. Ashton Company of New York as a jointly sponsored research project with the Hahnemann Medical College and the Drexel Institute of Technology, both of Philadelphia. It is considered to be one of the leading scientific developments of our time.

The Vanton "Flex-i-liner" Pump, which serves as the "heart" of the new device, has been used in the pumping operations of many of the leading chemical plants in the U. S. and Canada. The design of the pump, in which the fluid flows on the outside of the "Flex-i-liner" and on the inside of the body block, makes it particularly suitable for handling both corrosive liquids such as acids, alkalis and industrial alcohols, as well as many corrosive gasses. An eccentric rotor mounted on a ball bearing rides inside and activates the "Flex-i-liner," compressing its outer surface against the inner countersink surface of the body block. The "squeege" action thus created is the basis of the pump's operation.

Since the fluid passing through the pump is in contact only with the outer surface of the body block, these two components are furnished in a variety of materials depending upon the chemical resistance required for the fluid or gas to be pumped.

In addition to its non-corrosive feature, the Vanton Pump offers many other desirable characteristics. The unit is of the positive displacement type and self-priming, doing away with the usual bothersome priming devices. The possibility of external leakage and contamination by oil or grease is avoided by eliminating glands or stuffing boxes from the design of the unit. The absence of check valves of any sort adds to the pump's simplicity. Maintenance is a negligible factor, a

point of special importance in locations where spare parts must be held to a minimum. Infrequent replacement of the "Flex-i-liner" is the only pump service necessary. The unit is small and compact: 3¾" x 1½" x 2½".

Five models are available at the present time ranging from fractional to 5 GPM. Larger capacities up to 20 GPM are now being developed. In the standard models currently available, pumps may be supplied with body blocks of bakelite, polyethylene, or plexiglas, while "Flex-i-liners" are available in natural rubber, neoprene, buna, hycar, vinyl, polyethylene, and compar. Any combination of body block and "Flex-i-liner" in any standard capacity range may be obtained.

The pumps are available dismounted or mounted and direct-connected to a ¼HPAC motor operating at 1750 RPM. Special requirements such as variable speed, explosion proof, or totally enclosed motors can be fulfilled.

The Vanton "Flex-i-liner" Pump is manufactured and sold by the Vanton Pump Corporation, Empire State Building, New York 1, N. Y.

New Emulsifier

Announcement of the new Chaffee Laboratory and production Disc Disperser Models with exclusive shearing knives has been made by the Chaffee Design & Manufacturing Co., East Aurora, N. Y.

Both of these new models are equipped with perforated plates with the same size holes through which the emulsion is forced with feed screw pressure. This design feature makes it possible for both the Chaffee Laboratory and Production Models to produce identical products. In other words, the emulsion that is produced on a test basis in the pilot model can be duplicated exactly in the production model. Between each of the perforated discs, specially designed shearing knives revolve at very high speed.

This combination of discs and knives provides positive shearing action on the emulsion instead of the usual tearing that generates a terrific amount of frictional heat. Chaffee Disc Disperser does not require any cooling apparatus due to small amount of heat that is generated with this knife and disc arrangement during the dispersing operation.

The Chaffee Disc Disperser was developed for grease manufacturing but has wide application with slight modification in other industries using emulsions.

The increase in operational performance and efficiency is reflected in the use of much smaller motors than is customarily required by dispersing operations in grease-making including dispersing bentones.

For complete information on both models of Chaffee Disc Dispersers, write the Chaffee Design & Manufacturing Company, East Aurora, N. Y. for fully illustrated catalog.

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READERS' QUESTIONS

AMINOPHENOL HAIR DYES: I am a subscriber and I would like to take advantage of your reader's service to inquire about the dyeing of hair with aminophenols. Santiago.

It is said that the aminophenols, a variety of oxidation dyes used for coloring hair, are less likely to cause allergic reactions than are the diamines. Among the more important of these dyes are rodinal (p-aminophenol), a dye used for brown and chestnut shades, metol (methyl p-aminophenol sulfate) which gives blond shades, and amidol (3, 4-di-aminophenol hydrochloride), a black dye which does not stain the skin. By the use of different combinations of oxidation dyes it is possible to obtain a very wide range of hair shades.

TRIETHYLENE GLYCOL IN AIR SANITIZERS: Could you supply me with any information regarding the use of triethylene glycol in an air sanitizer to be used as an aid in the prevention of the spread of cold germs? If possible, please furnish me the amount of this chemical permissible to be used in an air sanitizer of this type. Waxahachie.

According to an abstract of the paper delivered by W. J. Lester and his associates at a meeting of the American Public Health Association, minute quantities of triethylene glycol vapor have been shown to be effective for aerial disinfection as a means of preventing the spread of infections which are airborne. In the concentrations used no toxic effects have been observed on human beings. The optimum concentration of the glycol for aerial disinfection is between 2 and 5 micrograms of glycol per liter of air within a 20 to 50 per cent range of relative humidity. To be effective the concentration of the glycol and the humidity must be rather carefully controlled. A lowering of either the humidity or the concentration of the glycol markedly lowers the germicidal action. Triethylene glycol must constantly be replaced in the air, for a portion of the glycol vapors are condensing from the air at all times, and the diluting effect of ventilation also makes necessary the addition of glycol vapor. Vaporizing units should be designed to have an output of at least 0.5 Gm. of triethylene glycol per hour per 1000 cubic feet of air to be treated. Since heat is used to vaporize the glycol in these units, the workers add a warning relative to guarding against decomposition of the glycol and fire hazards.

I would also suggest that you read the article by L. D. Polderman, which appeared in the November and December 1949 issues of *Soap & Sanitary Chemicals*. It presents highly comprehensive review of the use of triethylene glycol for air sanitization.

ANTI-FOGGING PREPARATIONS: We were wondering whether or not you can furnish us with a formula to clean eye glasses and windshields and keep them from fogging up. We want to put this out in a paste or ointment form. Miami.

A product of this sort was described by the British Air Ministry in 1940 as consisting of:

Sodium oleyl sulfate	**18.0 per cent**
Titanium dioxide	**27.0 " "**
Alcohol	**33.0 " "**
Water	**22.0 " "**

Another formula for a paste, which has received considerable mention, calls for the use of:

Glycerine	**8.000 parts**
Potassium oxalate	**16.000 "**
Spirits of turpentine	**1.000 "**
Camphor	**0.125 "**

GRIPE WATER: Will you be kind enough to send us a good formula for gripe water? Gulbarga. (India)

A formula for stomach gripe water as given in a recently published text calls for:

Sugar	**21.50 parts**
Soduim bicarbonate	**0.84 "**
Anise oil	**0.48 "**
Menthol	**0.02 "**
Water	**87.16 "**

PINE BATH OIL: Will you please send me a formula for a good pine bath oil, one that will really work when added to the water in the tub? Would a formula containing a pine oil compound and a wetting agent be beneficial? What wetting agent would you suggest? Los Angeles.

I should like to call attention to the fact that a very comprehensive article on bath oils, by H. Hilfer, appeared in our January 1950 issue. A pine bath oil can be made in one of several ways. The most prevalent method is to dissolve the oils in sulfonated castor oil in a ratio which would ensure its complete dispersion in the water. This ratio varies with different oils. More recently newer dispersing agents such as the polyethylene glycol derivatives of sorbitan esters have come into use and a much lower ratio is required.

PATENT THOUGHTS AND TRENDS

*by Thomas Cifelli, Jr., Patent Attorney**

PATENTED SKIN PREPARATIONS—II

Unexpired Patents

In the November 1950 issue of this Journal we began a consideration of the U. S. patents relating to skin treating compositions. Patents whose 17-year legal lives have alrady run were considered. We shall now review the unexpired patents.

As stated numerous times in these columns, the limitations of reviews such as these should be kept in mind. For one thing, the patents to be covered here deal with skin preparations of more general application than the cosmetic creams and lotions previously treated. Further, while all of the patents classified by the U. S. Patent Office in Class 167, subclass 90 will be dealt with, this review should not be considered to be complete. With these limitations in mind, we continue the review.

U. S. 1,984,669—issued Dec. 18, 1934 to Harry Taub, assigned to Feminine Products, Inc.

Wax-like or substantially solid perspiration-inhibiting and deodorizing compositions which act more to absorb and deodorize perspiration than to prevent its flow and which are non-irritating to the skin and non-injurious to fabrics are claimed to be disclosed by this patent. The main ingredients are a highly absorptive base, an antiseptic deodorant and a wax-like carrier.

An example of a composition embodying the invention follows:

Zinc sulphocarbolate	**6.5 per cent**
Zinc oleate	**13.2 " "**
Absorption base	**26.3 " "**
Glyco wax	**53 " "**
Perfume	**up to 1 "**

A solid wax-like perspiration deodorizing and inhibiting preparation comprising an absorption base, an effective perspiration deodorant and at least one wax-like ingredient.

U. S. 2,015,005—issued Sept. 17, 1935 to Fitzgerald Dunning, assigned to Hynson, Westcott & Dunning, Inc.

Anti-sunburn agents which are said to be stable, free from any detrimental action on the skin and adaptable for use in creams, ointments and lotions are the subject of this patent.

Claim 1 gives an idea of the subject matter and amount of protection:

A preparation adapted to be applied to human skin for protecting it against ultra violet light comprising an alkali metal salt of a sulfonic acid derivative of the group consisting of the mono- and di-sulfonic acid derivatives of a monohydroxy diphenyl of the group consisting of the ortho- and para-hydroxy diphenyls.

U. S. 2,021,131—issued Nov. 19, 1935 to Omer McDaniel, assigned to Mountain Varnish & Color Works, Inc.

The idea here is to provide a protective coating composition, effective against acid fumes, printers ink, gasoline, grease, oil, paints, varnishes, lacquers and enamels.

Claim 1 illustrates the subject matter and amount of protection:

A skin protecting coating composition which dries to a soft, pliable film, said composition consisting of a saponaceous solution comprising substantially 1600 parts by weight of water and 288 parts by weight sodium stearate, 1155 parts by weight glycerine, and 906 parts by weight sodium silicate, and substantially one part by weight lemenone.

U. S. 2,025,943—issued Dec. 31, 1935 to Frank Factor, assigned to Max Factor & Co.

The patent literature is probably the last place that one would look for a dissertation on the trials and tribulations of the lovely Hollywood creatures. Yet this patent does show that the outpourings of the movie magazines which picture the handsomely rewarded performers as slaves to work, etc. do in fact have some basis.

Specifically, this patent points out the many disadvantages of grease paints. For one thing, they have to be rubbed for long periods in order to get the desired uniformity. Such paints dry and crack on the skin after long exposure to air, which under the intense lighting and under conditions required in the movie industry, are serious problems. Finally, the use of cold cream to remove the usual grease paints is also mentioned as a disadvantage.

This patent provides a grease paint which is said to be capable of being applied quickly and easily in a uniformly thin and flexible coating. The new grease paint is liquid and avoids the above-mentioned disadvantages.

Claim 2 illustrates the composition of the paint as well as the amount of coverage:

A non-drying cosmetic grease paint comprising a free-flowing liquid composition including non-volatile oil in substantially larger volumetric proportion than any of the other ingredients, so that when applied to the skin the paint forms a flexible film that remains moist and resistant to cracking, a pulverulent texture ingredient, and an ingredient reducing the surface tension of the oil so that the paint is readily removable from the skin by soap and water.

U. S. 2,034,697—issued March 24, 1936 to Frank Factor, assigned to Max Factor & Co.

This is the patent on which the "Pancake" make-up is based. The make-up disclosed in this patent is probably the first one capable of being made without oils or greases and whose composition includes only the pulverulent texture ingredient and pigment, together with a vehicle which permits the make-up to be removed with only soap and water.

The trick involves the use of certain substances such as cetyl alcohol, lanolin, cholesterol, iso-cholesterol and the glycerol stearates.

In making the composition, a suitable quantity of the vehicle such as lanolin, containing a free fatty, acid, is heated to reduce the viscosity to a free flowing liquid. This is then mixed with an aqueous solution of a suitable emulsifying agent, such as triethanolamine, preheated sufficiently to prevent initial excessive cooling of the lanolin. An emulsion is thereby formed, the emulsi-

*Gaylor, Cifelli & Jurick, Newark, N. J.

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fying agent forming a soap as a result of the reaction with the acid. A prepared uniform mixture of the texture ingredients and pigment (such as zinc and aluminum stearates, talc, kaolin and the oxides of titanium, zinc and magnesium) is added. The entire mixture is passed through a colloid mill in order to disperse the pulverulent ingredients uniformly and thoroughly.

Claim 3 indicates the coverage:

A make-up material in solid form comprising a compressed body containing pulverulent texture ingredients and pigment, in uniform distribution within a mixture of lanolin with a soap, the lanolin being emulsifiable with water by rubbing the surface of said body with a moistened applicator, and said material being substantially free of oil and grease.

The patent states that "lanolin" is used in the claims merely as typifying a suitable vehicle.

U. S. 2,041,874—issued May 26, 1936 to Frits E. Stockelbach.

The use of menthyl salicylate as a sunburn-preventive is disclosed and covered by this patent. Stockelbach says that it is not only effective in the desired range but is non-irritating, unlike the phenyl- and benzyl-salicylates.

U. S. 2,043,657—issued June 9, 1936 to Victoria Goncarova.

A facial preparation which is said to be invisible on the face and stable over long periods is made with raw albumen from the fresh whites of eggs as principal ingredient.

Claim 1 follows:

A liquid cosmetic preparation adapted to be applied to the face in a smooth invisible film, comprising about three parts of fresh uncooked albumin and about one and one-half parts by weight of alcohol in the order of seventy percent strength, adapted to preserve said albumin over substantial periods of time without turning the albumin brown or precipitating the same, said mixture being adapted to be spread over the face in a thin film without showing when used in the day time.

U. S. 2,074,833—issued March 23, 1937 to Ralph H. Fash.

Fash suggests the passivating of razor blades by incorporating in shaving preparations oxidizing compounds such as chromic acid, chromates, perchlorates, etc.

The underlying idea here is that razor blades used with the ordinary shaving preparations become jagged due to oxygen corrosion of the steel and if this corrosion can be prevented by passivating the blades will last longer.

Claim 1 is illustrative:

A shaving preparation adapted to prolong the useful life of steel razor blades used with the same, comprising an oxidizing agent having passivating action on steel, and a material selected from the group of shaving aids consisting of shaving soap, soap-type shaving cream and brushless or latherless shaving cream.

U. S. 2,081,117—issued May 18, 1937 to Robert A. Hall, assigned to Colgate-Palmolive-Peet Co.

Esters of salicylic acid and polyhydric alcohols are disclosed as anti-sunburn agents. The monosalicylate of glycerol is preferred.

Claim 1 is illustrative:

An anti-sunburn preparation containing a substantial amount, effective to prevent sunburn, of an ester of salicylic acid with a polyhydric alcohol.

U. S. 2,087,161—issued July 13, 1937 to William C. Moore, assigned to U. S. Industrial Alcohol Co.

Moore uses aluminum or zinc soaps in solid, wax-containing deodorant compositions to keep the wax in the presence of the astringent salt employed from crystallizing in such a manner as to produce undesirable roughness. The astringent salts suggested are aluminum chloride or zinc chloride.

Claim 1 is illustrative:

A composition for topical use, containing an astringent salt selected from the group consisting of aluminum chloride and zinc chloride, a soap of one of these metals, wax, and a predominant amount of alcohol.

U. S. 2,087,162—issued July 13, 1937 to William C. Moore, assigned to U. S. Industrial Alcohol Co.

This is similar to U. S. 2,087,161, except that certain higher fatty acids and esters are employed in place of the aluminum and zinc soaps of U. S. 2,087,161. The acids in question are those having 10-20 carbon atoms and the esters are those derived from alcohols either monohydric or polyhydric, having from 2-4 carbon atoms. Natural oils or fat materials containing such esters can also be employed.

Claim 1 illustrates the protection obtained:

A solid or semi-solid composition for topical use, containing an astringent salt selected from the group consisting of aluminum chloride and zinc chloride, wax, a predominant amount of alcohol, and a modifier selected from the group consisting of the higher fatty acids and their esters of alcohols having two to four carbon atoms, said modifier having the property of inhibiting granulation of the wax.

U. S. 2,100,090—issued Nov. 23, 1937 to Fritz Sommer and Max Nassau, assigned to Chemische Fabrik Grunau Landshoff & Meyer A. G.

Albumen decomposition products of high molecular weight acylated at the nitrogen with higher fatty acid residues are suggested for use in cosmetic compositions because of the advantageous emulsifying properties of the products in question.

Specific cosmetic preparations in which the emulsifiers can be employed are toilet soap, liquid soap, hair-washing agents, shaving soaps, shaving creams, salves, creams, and toothpaste. Examples of albumen decomposition products useful in accordance with this invention are those of the type of lysalbinic and protalbinic acids. As examples of higher fatty acid residues, those containing from 12-18 carbon atoms are preferred.

Claim 1 is illustrative:

A cosmetic product containing albumin decomposition products of high molecular weight substituted at the nitrogen by higher fatty acid residues.

U. S. 2,101,843—issued Dec. 14, 1937 to Frank Factor, assigned to Max Factor & Co.

The main idea of this patent is to employ fillers and pigments such as talcum, titanium dioxide, ochre, the various lakes, etc. in such a way as to render them water-repellent by blending them with water-soluble or water-dispersible dispersing agents so that the resulting make-up when in dry, compressed cake form may be readily formed into a suspension with water and applied to the skin, whereupon after drying the water-repellent characteristics of the pigments and fillers are still retained. This is done by using from 2½ per cent to about 9 per cent by weight of oily and waxy constituents which are not water-soluble.

Claim 1 is illustrative:

A make-up cosmetic in solid cake form containing from about 35 per cent to 80 per cent by weight of filler and from about 12 per cent to 50 per cent by weight of pigments, lakes and earth colors, said filler, lakes, pigments and earth colors being substantially water-repellent, said cake containing from about 2.5 per cent to 9 per cent by weight of oils and waxes and also containing from about 1 per cent to 13 per cent by weight of water-soluble dispersing agents whereby said make-up may be applied to the skin by moistening a pad with water, rubbing it over the cake and then applying to the skin.

U. S. 2,102,712—issued Dec. 21, 1937 to Samuel Isermann et al.

Amino and substituted amino-orthobenzoic acids absorb from 50 per cent to 80 per cent of the ultra violet radiation in the region between 2900 and 4000 Angstrom units and are therefore suggested as anti-sunburn agents.

Isermann makes the point that erroneous conclusions are drawn if it is assumed that those substances which show absorption in the ultra violet region are ipso facto satisfactory for the purpose of protecting the skin. Indeed, it is said that many substances which heretofore have been proposed, such as

(*Continued on page 244*)

INDUSTRY'S BOOKS

Advanced Organic Chemistry, by Reynold C. Fuson, Professor of Organic Chemistry, University of Illinois, 669 pp., John Wiley & Sons, Inc., New York, $8.

This book is designed for students who have had an introduction to organic chemistry and seek mastery of its fundamentals. The author believes that the primary aim of the advanced student is to be intimately acquainted with the descriptive and theoretical information that organic chemists have in common. He has attempted to delineate the core of the subject that students may be expected to learn and to retain permanently. Therefore, emphasis is on the fundamental behavior patterns of organic compounds, correlating reactions with one another. Attention is directed to actual examples of synthetic value. In the selection of reactions, the author was guided chiefly by the interest of research workers as revealed by them in current publications. Experimental facts and their possible application in research are given first importance. The author believes that a student reexamining facts and theories will profit most if they appear in a context differing from the one familiar to him. For this reason, Professor Fuson deliberately used an organization of the subject matter that differs from the classical one found in elementary textbooks. For this volume he decided on an arrangement by type reactions. Theories, analogies, contrasts, discontinuities, and empirical rules are employed as much as possible to aid the student in assimilating and remembering the facts.

Organic Syntheses, Volume 30, 1950, 115 pp., John Wiley & Sons, Inc., New York, $2.50.

This is an annual publication of satisfactory methods for the preparation of organic chemicals. The present volume includes: 9-Acetylanthracene, 3-Aminopyridine, p-Aminotetraphenylmethane, dl-Aspartic Acid, Benzylcholine Iodide and Chloride, n-Butylacetylene, b-Carbethoxy-y,y-Diphenylvinylacetic acid, Chloroacetonitrile, trans-2-Chlorocyclopentanol, 4,4′-Dichlorodibutyl Ether, Diethyl cis- Δ4-Tetrahydrophthalate and Diethyl cis-Hexahydrophthalate, 1,4-Diiodobutane, Ethanedithiol, Ethylenimine, 5-Ethyl-2-Methylpyridine, Ethyl Phenylcyanoacetate, Fumaronitrile, Glutaric Acid, Hexahydro-1,3,5-Tripropionyl-s-Triazine, 2-Iodothiophene, 2-Mercaptobenzimidazole, Methanesulfonyl Chloride, N-Methyl-2,3-Dimethoxybenzylamine, 1-Methyl-3-Ethyloxindole, Methyl b-Thiodipropionate, 1-Naphthaldehyde, o-Nitroacetotophenone, Phenylacetylene, trans-1-Phenyl-1,3-Butadiene, a-Phenyl-a-Carbethoxyglutaronitrile, a-Phenylglutaric Anhydride, Phenylsuccinic Acid, 2,3-Pyrazinedicarboxylic Acid, 1,2,3,4-Tetrahydrocarbazole, Tetrahydrophthalic Anhydride, Tetraphenylarsonium Chloride Hydrochloride, o-Tolualdehyde, Vanillic Acid, Vinyl Laurate and Other Vinyl Esters.

The Technology and Chemistry of Alkaloids, by Frank E. Hamerslag, Consulting Chemist, 319 pp., D. Van Nostrand Co., New York, $5.75.

This book is primarily designed to help those engaged in or planning the manufacture of alkaloids. The main emphasis is upon the manufacturing processes rather than upon the chemistry of the alkaloids. The book deals mainly with the commercially practica alkaloids. The book was written to make available in one volume much practical information, such as the extraction and purification of the alkaloids, which heretofore had not been easily accessible.

Penicillin, Its Practical Application, under the general editorship of Professor Six Alexander Fleming, Second Ed., 491 pp., The C. V. Mosby Co., St. Louis, $7.

In the three years since the First Edition of this work appeared, penicillin treatment has become more standardized. It is now known with a fair amount of certainty what the drug can do and what it cannot do in the treatment of disease. The great changes which have taken place in the last three years are: (1) the increased purity of the commercial penicillin, culminating in the production of pure crystalline penicillin; and (2) the introduction of procaine penicillin—a preparation which is very slowly soluble in the body and which, like the oil and wax mixture, is only slowly absorbed and seems likely to completely displace it. Some new chapters have been added on the toxic manifestations of penicillin and its use in acute infectious diseases. To increase the scope of the volume a chapter has been incorporated on streptomycin, which is now readily obtainable.

Hugo Janistyn: Riechstoffe, Seifen, Kosmetika. Dr. Alfred Huthig Verlag, Heidelberg, Germany, 1950, 2 vols., 735 pp. and 543 pp.

The reputation of Hugo Janistyn is in high esteem in perfumery and cosmetic circles the world over; it is likely that this book will be the lasting tribute to that name. For this is a monumental work, encompassing within its cope what might well have been several separate volumes.

Opening the first of the two volumes, one first encounters a dictionary of cosmetic raw materials. Some of the references in this section consist of but a few words; others (as the description of absorption bases) occupy several pages. The dictionary contains numerous trade names, usually (but not always) with the name of the producer, and it will therefore serve as an additional reference book to identify trade products.

The second part of the first volume is devoted to perfumery, and begins with a rather brief summary of the constants of essential oils. The main raw materials recommended for various floral types of odors are given, and formulas, both original and from other authors, are suggested. Where the formulas contain one or more specialties, the source is usually given, but some omissions of sources were noted. A table of synthetics follows, in which there is offered an odor description and suggested uses for each product and, perhaps most valuable of all, a list of the trade names under which it is sold.

The second volume is devoted to the physical and chemical properties and the formulation of cosmetics, with particular emphasis on creams and lotions. Many of the formulasare borrowed from American writers (particularly de

Navarre), as it was Janistyn's intention evidently to prepare his work so that it might primarily serve the German cosmetic chemist and perfumer. His liberal use of the works of others—with full credit at all times—is to be commended.

All in all, an ambitious project, competently handled.

A Manual of Plastics and Resins, Edited by William Schack, with the Cooperation of members of the Society of Plastics Engineers, 547 pp., Chemical Publishing Co., Inc., Brooklyn, N. Y., $10.

This is a comprehensive survey of the materials, processes, products and equipment of the plastics industry. The book contains some 1500 subjects, and all of them are arranged in alphabetical order for ready reference. In addition to full-length articles, the book includes hundreds of short articles on products and definitions of basic molding, fabricating and chemical terms. Ample cross references guide the reader to an article which may appear under more than one heading. The major fields of plastics applications, such as aircraft, automotive, electrical appliances, housewares, refrigerators, etc., are all discussed in detail and each article tabulates not only the components for which plastics are used, but also the specific plastic used for each, and the properties which make it suitable for the purpose.

Antihistamines, Industry and Product Survey, by Nathan Wishnefsky, B.S., in Pharm., 157 pp., offset printed, paper bound, Chemonomics, Inc., New York, $5.

As a result of the rapid growth of the antihistamine field and the tremendous spread of the sources of information in this new field, interested persons have found it extremely difficult to keep abreast of pertinent developments. This book pulls in the strings of as many of these sources of information as are required to afford a representative picture of the particular phase of the subject being considered. The investigations leading to the incrimination of histamine as a cause of death in anaphylactic shock is described. The interrelation between histamine and allergy is then considered, followed by a description of the methods used in attempts to induce desensitization to histamine—with histamine, histamine-protein complex, and histaminase. The effectiveness of these methods is also discussed. The symptomatic antihistamines are then taken up with the explanation that they may be advantageously used in conjunction with the modern chemically antagonistic antihistamines. The chemical structure of the all-important histamine is considered togegher with its physiological useful purpose in the body. The modern antihistamines' chemical precursors—both those effective in vitro and in vivo—are discussed. The modern antihistamines are then taken up one by one. Following this is a comparison of the effectiveness of the various antihistamines in allergic conditions, preceded by a discussion of the limitations inherent in such a comparison. The subject of the common cold is then considered starting with a review of the preventatives used previous to the advent of the modern antihistamines. This is followed by a discussion of the use of the modern antihistamines in the alleviation of the symptoms and manifestations of the common cold.

Surface-Active Quaternary Ammonium Germicides, by Carl A. Lawrence, Ph.D., Department of Bacteriology, University of Michigan Medical School, 245 pp., Academic Press, New York, $6.

The quaternary ammonium surface-active antiseptics have secured a prominent and important place in the fields of medicinal and general disinfection during the past decade. These compounds are of particular interest in that, unlike most other disinfectants, they exhibit not only germicidal action but also surface-active, detergent, and wetting properties. Jacobs, Heidelberger, and their co-workers at the Rockefeller Institute reported as early as 1916 on the bactericidal properties of a large number of quaternary ammonium salts of hexamethylenetetramine. However, almost 20 years elapsed before any further significant contributions to this field were published. It remained for Domagk (1935) to focus attention on surface-active quaternary ammonium compounds as germicides and antiseptics. The number of publications on the clinical use of alkyldimethylbenzylammonium chloride, soon after Domagk's initial paper, and the extensive series of publications through the intervening years on this and related compounds exemplify the important role the quaternary ammonium salts play in the search for an ideal antiseptic. The purpose of this monograph is to accumulate in the pages of one volume a review of the history, chemistry, biology, and application of the quaternary ammonium salts that have appeared in print to date.

The Chemical Elements and Their Compounds, by N. V. Sidgwick, Fellow of Lincoln College, Formerly Professor of Chemistry in the University of Oxford, 2 volumes, 1703 pp., The Clarendon Press, Oxford, $14.

This book is an attempt to discuss in detail the properties of the elements and their compounds in the light of modern ideas of atomic and molecular structure. The development of these ideas in the last thirty years has made it possible to transform Inorganic Chemistry from a mass of disconnected facts into an ordered system of relations. Inorganic textbooks are, however, usually so over-burdened with the details of mineralogy, metallurgy, technical chemistry, and analysis that hardly any space is left for the considerations of the theoretical relations; while the customary exclusion of all but the simplest compounds of carbon deprives us of the help of the best-known and most important of the elements. The author has tried to avoid these errors both of excess and of defect, and to give an account of the compounds of all the elements, with special reference to the general relations between them. The basis of classification is, of course, the Periodic Table, the simplest arrangement for exhibiting the relations of the elements.

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by Thomssen and McCutcheon

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Modern Nail Lacquers

In his comprehensive review on the history and formulation of nail lacquers, N. S. Peel (*Soap, Perf. & Cosmetics* 23:1013 and 1130, 1950) cites the following as a general but indicative formula for products of this kind:

Nitrocellulose (½ sec. viscosity)	**10 parts**
Resin or resins	**10 "**
Plasticizer	**5 "**
Denatured alcohol	**5 "**
Ethyl acetate	**20 "**
Butyl acetate	**15 "**
Toluene	**35 "**
Coloring materials	**sufficient**

Nitrocellulose or cellulose nitrate, he notes, is still the most important of nail lacquer film-forming agents.

Nitrocelluloses for nail lacquers are those of the soluble pyroxylin type (also known as collodion cotton, soluble cotton and varnish cotton), these containing from about 11.2 to 12.2 per cent nitrogen. Within this range of nitration, solubility reaches its maximum. For nail lacquer manufacture, low viscosity grades of nitrocellulose, soluble in mixture of esters, ketones and alcohols, are normally selected. Specially useful is the grade having a viscosity designation of ½ second, and this may well be regarded as the standard film-forming base of modern nail lacquers, requiring only the modification of added synthetic resins and incorporation in appropriate mixtures of plasticisers and solvents.

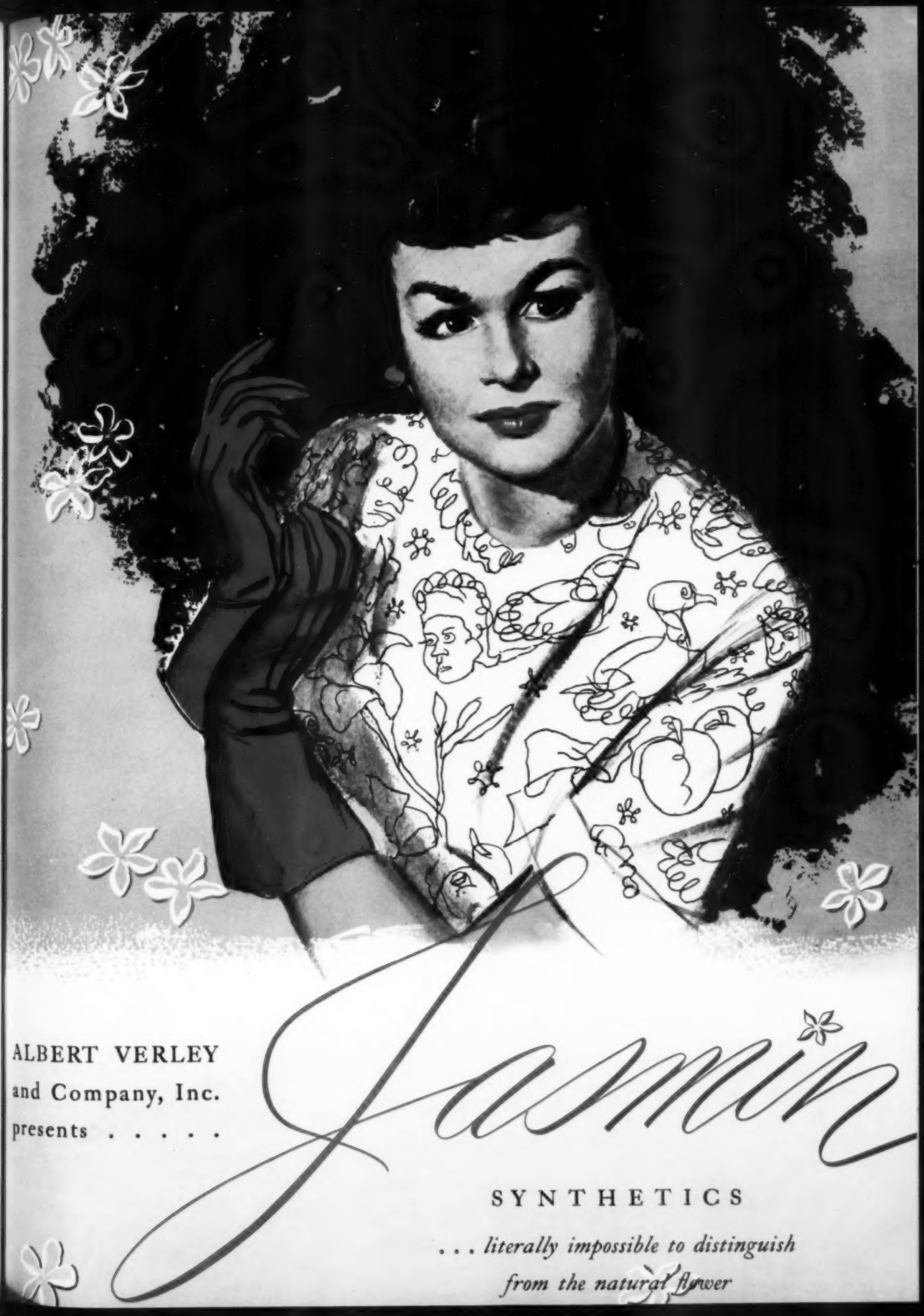
By itself, nitrocellulose gives a brittle film of relatively poor adhesion. To improve the flexibility and durability of the films, flexing or plasticising agents are added to nail lacquers containing it. Some of these, moreover, also aid uniform adhesion to the surface of the nails. Improved films of high lustre and excellent adhesion are obtained by the simultaneous inclusion of nitrocellulose and selected resins, the latter being usually synthetic. A wide range of resins, both natural and synthetic, are available for experimental inclusion in nail lacquers. The natural and slightly modified resins include rosin, mastic, elemi, shellac, sandarac and ester gum; while the synthetics include methacrylate, polyvinyl, polystyrene, coumarone-indene, urea derivative, cyclohexanone and sulphonamide-formaldehyde types.

The first plasticiser used with nitrocellulose was camphor. Since that time many other plasticising agents have been employed, in order to ensure a more flexible and adherent film. Among the more interesting are: tricresyl phosphate; triphenyl phosphate; castor oil (raw); castor oil (blown), ethyl lactate; triamyl citrate; tributyl citrate; diethyl phthalate; dibutyl phthalate; dihexyl phthalate; dioctyl phthalate; dimethyl phthalate; tetrahydrofurfuryl alcohol; methyl glycol oleate. Traces of special agents such as ethyl oleate, butyl stearate and butyl oleate, are useful to increase the water-repellent characteristics of the applied film. Peel notes that preparations containing hard resins as well as nitrocellulose commonly require a higher proportion of plasticising agents than would be desirable for a simple nitrocellulose preparation.

Almost three-quarters of the finished product is likely to consist of a mixture of solvents. Of these, the most generally useful are ethyl acetate, amyl acetate, butyl acetate, industrial methylated spirit (denatured alcohol) and acetone. Methyl amyl and methyl ethyl ketones; methyl isobutyl ketone; diacetone alcohol; ethylene glycol monomethyl and monobutyl ethers; cyclohexane, cyclohexyl acetate and methyl acetate and several other organic solvents, come up for consideration as modifiers of the foregoing. A workable compromise between low, medium and high boiling solvents in order to arrive at a lacquer that will spread well, leave no brush marks on the nails, and yet dry reasonably quickly, must be carefully contrived by the compounding chemist. An excess of low boiling solvents leads to patchy, uneven application and a product that "bodies up" in the bottle. On the other hand, an excess of high boiling solvents imparts tackiness, slow drying, and consequent tendency to smear. Another fault to avoid is "blushing" or the opacifying of the applied film, due to its taking up atmospheric moisture. Blushing is best avoided by keeping to a minimum solvents with an affinity for water, by using anhydrous solvents and by shunning the use of non-solvent diluents such as benzene, toluene and xylene. Peel also suggests that the inclusion of from 5 to 10 per cent of butyl alcohol is a useful precaution against "blushing," as it forms a constant boiling mixture with water and carries away every trace of moisture. In addition, it improves the flowing properties and helps to prevent "orange peel."

In considering colors and pigments, Peel remarks on the persistent popularity of the creamy opaque products, as contrasted to the clear nail lacquers of former years. He notes that waxoline and other fatty acid-free lacquer dyes are available in pink, carmine, rose, ruby, crimson and other shades. They should be readily and completely soluble, and are normally used in concentrations not exceeding a fraction of 1 per cent. More important are the lakes and pigments, which may make up from 2 to 5 per cent or so of the total formula. By no means all the available cosmetic lakes are suitable for incorporation in nail lacquers: some react and discolor, others stain the nails, while still others are not fast to light. He cites the fact that the most commonly used pigments for obtaining opacity and "creaminess" are titanium dioxide and iron oxide (tan shade). Other shades of iron oxide are also employed. Iron blue—of which class Prussian blue is the best known member—is used for shading. Apart from these, selected maroon, red and yellow lakes (one of each) are all the colors required to produce the three or four hundred shades of opaque modern nail lacquer. These colors are selected for their stability under the difficult conditions of use. All must be characterized by exceptionally fine particle size, if problems of precipitation and caking are to be avoided.

In addition to the ordinary opaque lacquers, Peel considers the nacreous or mother-of-pearl types. These incorporate fish scale essence, known as Oriental essence and pearl essence, and containing small crystalline plates of a substance known as guanin. A basic formula for such a product, as originally given by Winter, is cited as follows: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Butyl alcohol	8.0 "
Butyl acetate	80.0 "
Acetone	25.0 "
Amyl acetate	17.0 "
Castor oil	2.5 "
Fish scale essence	3.5 "

Nail lacquer or nail polish removers are also discussed; the following formulas being given as examples of such products:

I

Castor oil, cosmetic grade	3 parts
Industrial methylated spirit	25 "
Ethyl acetate	20 "
Butyl acetate	15 "
Butyl alcohol	7 "
Amyl acetate	15 "
Acetone	15 "

II

Diethylene glycol monoethyl ether	15 parts
Butyl acetate	15 "
Castor oil	5 "
Perfume oil	1 part
Vitamin F Concentrate	5 parts
I.M.S.	27 "
Acetone	32 "

III

Butyl stearate	4 parts
Isopropyl myristate	2 "
Diethylene glycol monoethyl ether	18 "
Acetone	79 "

Improvements in nail polish removers, as indicated in patents, are considered as well.

Liquid Vanishing Cream

Among the formulas presented at the Sixth Institute on Hospital Pharmacy (through *Bull. Am. Soc. Hospital Pharm.* 7:287, 1950) was the following formula for a liquid vanishing cream:

Paraffin	60.0 Gm.
White beeswax	120.0 Gm.
Liquid petrolatum	540.0 Gm.
Stearic acid	10.0 Gm.
Sodium borate	10.0 Gm.
Perfume bouquet	2.0 cc.
Distilled water	260.0 cc.

Melt the paraffin, white wax, mineral oil, and stearic acid together and heat to 70° C. Dissolve the borax in the water and heat the solution to 70° C. also. Slowly add the lipoid phase to the aqueous phase with constant stirring. Stir until congealed, then add the perfume, mix thoroughly, and pass through mill.

Booklet on Sucrose Octa Acetate

It has been announced that Niacet Bulletin No. 16 on Sucrose Octa Acetate presents in detail the physical and chemical properties, latest specifications, and applications of this chemical. Although a derivative of cane sugar, Sucrose Octa Acetate has an intensely bitter taste. Only one part in 100,000 parts of water can be readily tasted. It has been successful in preparations for preventing finger-sucking and nail-biting by children, as a denaturant in several alcohol formulas, and as a "bitter" in foods and medicines. Its low order of toxicity makes it an excellent material to add to poisonous household chemicals to prevent their consumption. Copies of the bulletin can be obtained from Niacet Chemicals Division, 969 Niagara Building, Niagara Falls, N. Y.

Anti-Sunburn and Suntan

Products which simultaneously provide anti-sunburn effects yet permit skin pigmentation (e.g. suntan) are described in British patent 638,630, granted to Milton Antiseptic, Ltd. and P. H. Lincoln. These results are attained through the use of preparations containing the following components in combination: (a) Triethanolamine salicylate, (b) a gelatinous or mucilaginous vehicle, (c) an astringent, such as witch hazel extract, (d) a humectant, like glycerine, and (e) a substance to adjust the pH to 7 to 8. Illustrative of methods for making such preparations is the following general formula:

Sodium alginate	1-5 per cent
Witch hazel, liquid extract	5-10 " "
Glycerine	5-25 " "
Triethanolamine salicylate	5-10 " "

Chigger Repellent

According to a note in the *Journal of the American Medical Association* (144:1324, 1950), mite or chigger infestations may be prevented by the use of repellents, one formula being:

Dimethylphthalate	6 parts
Indalone (butyl mesityl oxi-oxalate)	2 parts
Rutgers 612 (2-ethyl-hexanediol-1, 3)	2 parts

These are mixed mechanically. One-half teaspoonful is poured into the palm of the hand; the hands are rubbed together, and a thin layer of the mixture is applied to the face, neck, ears, hands and wrists (but not into the eyes or mouth). The application on the skin is effective for two to four hours. In addition to mites, it repels immature ticks, mosquitoes, gnats and flies. The application on garments is more lasting. It is sprayed or applied by hand and remains effective for a number of days. The impregnation of clothes with dimethylphthalate lasts still longer. They are immersed in a solution of 5 per cent dimethylphthalate and 2 per cent soap and dried. Clothes remain repellent for a month or two even though laundered.

Antihistaminic Preparations

Antihistaminic preparations, to be included in the "Accepted Florida Formulary," have been presented by the Bureau of Professional Relations of the Florida College of Pharmacy. For example, an antihistaminic ophthalmic solution may be prepared by dissolving 0.5 per cent of tripelennamine hydrochloride. USP in isotonic sodium chloride. This solution is indicated for the symptomatic relief of allergic palpebral dermatitis or eczema, conjunctivitis, vernal catarrh, and such complications of allergic rhinitis as infiltrative and ulcerative keratitis.

An antihistaminic expectorant may be made from:

Tripelennamine HCl USP XIV	180 mg.
Ephedrine sulfate	60 mg.
Ammonium chloride	480 mg.
Cherry vehicle, to make	30 cc.

The dose is one to two teaspoonsful every three or four hours as directed by the physician.

An antihistaminic nasal solution consists of:

Tripelennamine HCl	0.5 per cent
Sodium Chloride	0.9 " "
Gifford's buffer solution, pH 6.2, to make	100.0 " "

In the majority of cases, two or three drops applied every three or four hours, are sufficient. The nasal preparation is indicated in all rhinitis due to or associated with allergy, the nasal obstruction being usually relieved within a few minutes after application. Relief may persist for as long as 24 hours.

Also given is a formula for making antihistaminic cold capsules. The following prescriptions provides sufficient material to make ten capsules:

Tripelennamine	0.25 Gm.
Acetylsalicylic acid	1.50 Gm.
Acetophenetidin	1.60 Gm.
Caffeine	0.30 Gm.

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YOUR TRADE-MARK RECORD

by John H. Graham
International Patent and Trade-Mark Consultant

Will the U.N. Create an International Copyright Law?

Recently, a press notice was issued by UNESCO (United Nations Educational, Scientific and Cultural Organization) referring to the possibility of a Universal Copyright Convention for all countries of the world.

With international trade practices foreshortening the world's span, such a plan is timely.

Normally, copyright questions do not form the subject of these columns. But the closeness of copyrights to trade-marks is such that comment seems needed.

A perfect example of copyright protection which might be applicable to the cosmetic or toilet goods professions came up recently.

A well-known sculptor created an artistic design for an angel. A candle manufacturer contracted with him to form the work of art into candles for Christmas use.

Copyright was obtained by the sculptor for his original work of art.

Copyright, with his permission, was obtained by the manufacturer for the reproduced candles.

This could equally be done for instance in connection with a perfume bottle or powder box.

Sometimes, it is possible to register the actual bottle or box itself as a trade-mark, if it has become distinctive of the goods. This is particularly true under the Lanham Act which has provision for such things as valid trade-marks under some conditions.

Sometimes it is necessary to consider copyright protection instead, however.

In the international picture, copyright under the right control would offer great advantages.

Most countries will not consider or register a box or other "distinguishing guise" as a trade-mark even when a U. S. trade-mark registration exists.

Thus, a sound reciprocal international registration of COPY-RIGHT might be the solution to the piracy so often met with in some foreign countries with respect to U. S. goods and their trade-marks or trade-guise.

It will take some time for UNESCO to come through with anything tangible. However, 37 countries have so far contributed their comments.

This group includes the major countries of the world (Russia as usual abstained).

Perhaps we are starting on the right road, however, to bring trade unity to the countries of the world by clearly defined reciprocal trade provisions.

Some More Interesting Decisions

"Sleeping is a serious business" was refused by the Patent Office on appeal to Assistant Commissioner Murphy as having no trade-mark significance as applied to nightgowns, pajamas, etc.

It was held that this was merely a laudatory or "puffing" expression indicating quality of the goods rather than origin.

In Smith, Kline & French Labs versus Stuart-Chase Co., on appeal, again to Mr. Murphy, it was held that "DISTREX INHALATOR" (inhalator being disclaimed), adopted by Stuart-Chase was not confusingly similar to S-K-F's registered trade-mark "DEXTRETTES."

The reasons for such a decision were two-fold and were held to be cumulative in effect. First of all, the goods were considered dissimilar since the "DISTREX" inhalator was for treating colds, hay fever and other respiratory conditions while "DEXTRETTES" were for use in treating obesity and circulatory and digestive disturbances.

Secondly, there appeared to be sufficient lack of similarity in both appearance and sound that there was little chance of confusion.

Helena Rubinstein Inc. applied for registration of the trade-mark "LIPSTICK FOUR-CAST" ("lipstick" and "four" being disclaimed) for a combination of lipsticks sold as a unit.

This mark was refused by the trade-mark Examiner on the basis of the registered trade-mark "BRIGHT FORECAST" for lipstick, etc. (Revlon Corp.)

Upon appeal, the refusal to register was upheld.

In this case, it is significant that the applicant (Rubinstein) argued that since there were doubts about the possible confusion to the public as to origin in view of the difference in suggestive meaning between the two marks, the queried mark should be published since Revlon would have the right to oppose if they felt injured.

This argument was dismissed on the basis that no authority or prior decision exists permitting publication of a mark for the purpose of allowing a prior registrant to oppose it, when the mark, on the face of it, is not considered registrable by the trade-mark authorities.

On Unfair Competition

An example of the manner in which you can protect your bright ideas from appropriation by others is given in a recent N. Y. State Supreme Court Decision.

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It turns upon the so well-known "Roller Derby" which television and spectator sports have made so popular.

One Seltzer who spent great time, money and efforts to promote the exhibit known as the "Roller Derby" sued one Flanagan who began to exploit "Roller Relay Derby" and "Roller Skating Derby."

The Court found fully in favor of Seltzer since by his efforts their appeared no doubt that his business had become identified by "Roller Derby" and the term had acquired a secondary meaning as being Seltzer's exhibit only.

It was held that Flanagan by his advertising of "Roller Skating Derby" and "Roller Relay Derby" was only confusing the public and causing deception.

This did not prevent Flanagan from exhibiting however but only from using the terms objected to by Seltzer.

This is an excellent case to show how unfair competition laws can protect a bona fide owner of a trade-guise or trade-name, with or without registration.

The following Trade-Marks were recently published in the Official Gazette of the United States Patent Office.

Avatar—51—C—H—584,777
Jacques Romano dbsa Jamol Co. N. Y., N. Y.
Ser. Sept. 13, 1949 D. U. Apr. 22, 1924

B A & CO.—51—A-B-C-E-H-K-I—597,115
B. Altman & Co., N. Y., N. Y.
Ser. May 9, 1950 D. U. Since 1915

Beauty Grains—51—C—570,616
Helena Rubenstein, N. Y., N. Y.
Ser. Dec. 6, 1948 D. U. Jan., 1934

Ben-Bar—51—H—561,946
Roeding Park Pharmacy Inc. dbsa Bennetts-Barnett Lab., Fresno, Calif.
Ser. July 22, 1948 D. U. June 1, 1948

Blue Angel—51—B—595,649
Avon Products, Inc., N. Y., N. Y.
Ser. April 13, 1950 D. U. April 3, 1950

Bovay—51—H—573,357
M. S. Chapell, West Orange, N. J.
Ser. Feb. 5, 1949 D. U. Jan. 20, 1949

Bye-Line—51—C—587,843
Elizabeth Arden Sales Corp., N. Y., N. Y.
Ser. Nov. 16, 1949 D. U. Jan. 10, 1949

Claude Fontaine—2—M—577,196
Les Parfums de Dana Inc., N. Y., N. Y.
Ser. Apr. 15, 1949 D. U. Mar. 24, 1949

Dandricide—51—H—595,965
King Research Inc., Bklyn., N. Y.
Ser. Apr. 19, 1950 D. U. Apr. 15, 1950

Desitin—51—C—596,486
Desitin Chemical Co., Providence, R. I.
Ser. Apr. 28, 1950 D. U. Aug. 12, 1932

Dieu de Jour—51—B—570,943
Callot Soeurs of Paris, Inc., N. Y., N. Y.
Ser. Dec. 22, 1948 D. U. Oct. 15, 1947

Dry-O-Scent—51—D—540,156
Beauty Products, Ltd., Denver, Colo.
Ser. Nov. 5, 1947 D. U. Aug. 1, 1937

Eight Hour—51—C—580,917
Elizabeth Arden Sales Corp., N. Y., N. Y.
Ser. June 23, 1949 D. U. Aug. 12, 1930

Far-Mo—51—H—593,476
C. M. Farmer dbsa Far-Mo Labs., Omaha, Nebr.
Ser. March 6, 1950 D. U. Since 1929

Frosted Cologne—51—B—587,212
L. G. Rothchild—dbsa Lenel Co., Dallas, Tex.
Ser. Nov. 2, 1949 D. U. Oct. 1, 1949

Hair Magic—18—H—580,370
Mar-Sha Inc., Kansas City, Mo.
Ser. June 13, 1949 D. U. Apr. 15, 1949

Hospi-Lotion and des.—51—C—596,185
Ulmer Pharmacal Co., Minneapolis, Minn.
Ser. April 22, 1950 D. U. Feb. 16, 1934

Ingram—51—K—578,676
Bristol-Myers Co., N. Y., N. Y.
Ser. May 12, 1949 D. U. Apr. 6, 1949

Keep Cool—51—C—595,594
Cheramy Inc., N. Y., N. Y.
Ser. Apr. 12, 1950 D. U. Mar. 16, 1950

Kool-Tone—51—F—535,481
C. I. Rudinger dbsa Kooltone Mfg. Co., San Francisco, Calif.
Reg. May 31, 1949 D. U. May 20, 1949

Lancome and des.—51—BCH—577,003
Societe Lancome S. A., Paris, France
Ser. March 11, 1949 D. U. July 29, 1942

Lavendol—51—C—596,186
Ulmer Pharmacal Co., Minneapolis, Minn.
Ser. April 22, 1950 D. U. January 1, 1942

Lilt—44—G—560,500
Proctor and Gamble Co., Cincinnati, Ohio
Ser. June 30, 1948 D. U. Feb. 25, 1948

Marchand's—6—M—577,724
Charles Marchand Co., N. Y., N. Y.
Ser. April 26, 1949 D. U. Sinde 1890

Mozart and des.—51—B—555,393
George R. Edmunds, Atlanta, Ga.
Ser. April 23, 1948 D. U. Mar. 27, 1948

Nicky Chini—51—B—519,924
Nicky Chini, Milan, Italy
Ser. April 1, 1947 D. U. Since 1936

Noshine—51—C—582,339
Elizabeth Arden Sales Corp., N. Y., N. Y.
Ser. July 22, 1949 D. U. July 10, 1929

Nyme-Air—52—A—591,402
A. N. Castro, N. Y., N. Y.
Ser. January 25, 1950 D. U. Sept. 8, 1949

Nyrel—51—D—596,190
Ulmer Pharmacal Co., Minneapolis, Minn.
Ser. April 22, 1950 D. U. Dec. 26, 1939

Pat de Jean Patou—51—B—589,470
Jean Patou Inc., N. Y., N. Y.
Ser. Dec. 16, 1949 D. U. Dec. 6, 1949

Peau Fraiche—51—C—591,911
Caron Corp., N. Y., N. Y.
Ser. Feb. 3, 1950 D. U. Since Aug., 1947

Plumb Beautiful—51—C—586,431
Revlon Products Corp., N. Y., N. Y.
Ser. Oct. 17, 1949 D. U. Aug. 1, 1949

Q-Things—51—C—590,522
Q-Tips-Inc., L. I. C., N. Y.
Ser. Jan. 7, 1950 D. U. Sept. 1949

Radar—51—B—516,291
Jean-Pascal Lerriaux & Cie., Paris.
Ser. Jan. 24, 1947 D. U. Nov. 27, 1945

Rangoon—51—BCH—591,020
Consolidated Cosmetics, Chicago, Ill.
Ser. Jan. 18, 1950 D. U. Jan. 13, 1940

Restrain—51—D—588,625
George A. Banks, Wheeling, W. Va.
Ser. Dec. 1, 1949 D. U. Nov. 14, 1949

Scentinel—2—M—496,017
Mary Dunhill, Inc., N. Y., N. Y.
Ser. Feb. 5, 1946 D. U. Jan. 11, 1941

Sealtube—18—H—520,608
Bristol Myers Co., N. Y., N. Y.
Ser. April 14, 1947 D. U. July 22, 1936

Shad-Lite—51—C—571,540
Kiva Hoffman, Sherman Oaks, Calif.
Ser. Jan. 3, 1949 D. U. June 15, 1941

Shakti—51—BC—596,779
Coty, Inc., N. Y., N. Y.
Ser. May 31, 1950 D. U. Apr. 28, 1950

Suntana and des.—51—S—580,295
B. J. Freidman, Santa Monica, Calif.
Ser. June 11, 1949 D. U. May 27, 1949

Tame—51—H—597,146
Gillette Safety Razor Co., Boston, Mass.
Ser. May 9, 1950 D. U. Feb. 9, 1950

Tepidaire—51—G—594,898
Gabrieleen Co., Inc., Chicago
Ser. March 30, 1950 D. U. May 1, 1942

Tetrarome—6—M—55,800
Firmenich & Co., Geneva, Switzerland
Ser. Feb. 28, 1948 D. U. July 11, 1940

Tiney Waist—51—B—586,447
Parlfums Evyan Inc., N. Y., N. Y.
Ser. Oct. 17, 1949 D. U. Oct. 14, 1949

Tresemme—51—52—H—557,920
Godefroy Mfg. Co., St. Louis, Mo.
Ser. May 27, 1948 D. U. Nov. 28, 1947

Twin-Jector—23—R—568,102
Eversharp Inc., Chicago, Ill.
Ser. Nov. 3, 1948 D. U. Oct. 7, 1948

VP—51—D—581,491
Virginia Parks Inc., Chicago, Ill.
Ser. July 2, 1949 D. U. June 20, 1949

Virginia Parks—51—D—581,492
Virginia Parks Inc., Chicago, Ill.
Ser. July 2, 1949 D. U. June 20, 1949

Waves of Fragrance—51—B—596,155
Bourjois Inc., N. Y., N. Y.
Ser. April 22, 1950 D. U. Mar. 23, 1950

Wav-O-Bob—51—52—H—559,804
Victor Brog dbsa Rene St. Claire Products Co., Memphis, Tenn.
Ser. June 11, 1948 D. U. March 3, 1927

Yachting—51—B—589,898
Goya Inc., N. Y., N. Y.
Ser. Dec. 24, 1949 D. U. July 3, 1944

Act of 1946

The following Trade-Marks have been recently republished under the terms of the above (Lanham Act). No opposition can be filed against them but they are all subject to cancellation proceedings.

Mirror—51—E—170,755
Reg. July 24, 1923 to H. L. Hughes Co., Inc.
Repub. by Johnson & Johnson, New Brunswick, N. J.

Poetic Dream—51—B—275,470
Reg. Sept. 23, 1930
Leigh Chemist Inc., N. Y., N. Y.
Repub. Shulton Inc., N. Y., N. Y. D. U. May 22, 1930

ADVANCING THERAPY

Penicillin Plus Sulfas for Pneumonia

A new approach to the treatment of pneumonia is offered by H. Vollmer, H. H. Pomerance and I. K. Brandt (*New York State J. Med.* 50:2293, 1950). They found, in animal experiments, that if a combination of sulfadiazine, penicillin, and sulfamerazine is administered simultaneously by mouth, their different absorption times result in three peak concentrations following each other at short intervals in the blood stream. To test the clinical effectiveness of such a combination, 26 children with pneumonia were treated with a single oral dose of combined sulfadiazine, sulfamerazine, and penicillin. The dose consisted of 0.1 to 0.2 Gm. of combined sulfonamides per Kg. of body weight and 8,000 to 10,000 units of penicillin per 0.1 Gm. of sulfonamides. The medication consisted of the combination in tablet form. Each tablet contained 0.25 Gm. sulfadiazine, 0.25 Gm. sulfamerazine, and 40,000 to 50,000 units of potassium penicillin G.

The temperature became normal within four to 28 hours, or an average of 14.8 hours as compared with an average of 38.4 hours in a previously published group treated with single, higher doses of sulfadiazine alone. With the three combined agents, the temperature became normal within 24 hours in 25 of 26 children; with the higher dose of sulfadiazine alone, 12 of 25 children became afebrile after more than 48 hours.

The single-dose treatment with the three combined agents appeared to be superior not only to single, higher doses of sulfadiazine but also to the treatment with a full course of sulfadiazine; it seemed to be as effective as treatment with repeated intramuscular administration of large doses of penicillin as well as with a full course of sulfadiazine by mouth combined with repeated parenteral administration of penicillin.

In addition to these tests, 20 children with tonsillitis, otitis media, pneumonia, scarlet fever, or lymphadenitis were treated for one to two days with 0.1 Gm. of combined sulfonamides and 10,000 to 12,500 units of penicillin per Kg. of body weight per day, divided into three oral doses a day. Fever subsided and did not recur after from eight to 23 hours, or an average of 20.2 hours. These favorable results are ascribed to a synergistic effect of the combined three agents.

Failure of Ammonia Ions Against Lactobacilli

The effect of ammonia ions on the growth of seven strains of lactobacilli isolated from carious human teeth and from saliva and on the growth of *Lactobacillus acidophilus* (American Type Culture Collection #4646) was evaluated by W. F. Kirchheimer and H. C. Douglas (*J. Dental Res.*, June, 1950, p. 320). In their work two different media containing from 0.25 to 0.5 per cent of various ammonium salts were employed in these experiments. Growth was determined either by titration of acid formed or turbidimetrically with the Klett-Summerson photoelectric colorimeter.

The results show that ammonia salts added to culture media in concentrations of 0.25 to 0.5 per cent fail to inhibit the growth of the strains of lactobacilli tested.

Allergy to Pharmaceutical Excipients

T. C. Randolph (*Ann. Allergy* 8:519, 1950) call attention to the possibility of allergy to the so-called "inert ingredients" or excipients of pharmaceutical preparations. Thus, the major excipients used for binding the ingredients of pills and tablets include corn starch, milk sugar, gum acacia, gum tragacanth, senna powder, flour, sugar and various chemicals. Additional potentially allergenic materials employed in pharmacy in the manufacture of tablets, powders and capsules, as granulating agents, lubricating and disintegrating agents, flavorings and ingredients of coatings and capsules, include glucose, pectin, agar, gelatin, honey, gum karaya, casein derivatives, cocoa butter, chocolate, fresh eggs, corn oil, soy bean oil and olive oil.

He points out that the law does not require that these ingredients be tested on the label. However, allergic symptoms may be precipitated in patients highly sensitive to such common foods as corn and milk by the ingestion or injection of medicaments containing these specific excipients. Randolph cites cases to illustrate allergenicity of corn and of milk products used as excipients. A case of asthma and urticaria due to gum tragacanth used as an excipient in an antihistaminic tablet has been reported by others. The allergenicity of acacia has also been emphasized. Contrary to the alleged nonantigenicity of gelatin, Randolph recently observed clinical reactions to the ingestion of commercial gelatin in three of four highly beef-sensitive persons. Four patients highly sensitive to corn were observed to have symptoms identical to those produced by the test ingestion of corn or corn products after the administration of penicillin G. The fungus, penicillium, from which penicillin is harvested is usually grown on corn steep liquor. Since three of the four patients tolerated penicillin O (prepared from noncorn nutrient sources) when administered by injection, and the other tolerated corn-free penicillin O troches, it is strongly suggested that penicillin as ordinarily available commercially carries the allergenicity of the corn steep liquor on which it is grown.

Vitamin B_{12} in Pernicious Anemia

In the *Southern Medical Journal* (43: 678, 1950), M. F. Beard, S. K. McIlvanie and M. Nataro present a preliminary report of the first four months of treatment with vitamin B_{12} of 18 patients with pernicious anemia in remission. Thirty micrograms per month of vitamin B_{12} was given intramuscularly once every four weeks after prolonged refined liver therapy. Three types of response were observed: Six patients were observed to be in a state of partial response to liver and were improved with vitamin B_{12}. Five patients were slightly improved or unchanged. Seven patients had declines in hemoglobin levels either with or without subjective complaints. Two in this group complained of weakness and paresthesias, without declines in their hemograms. Response of some

of the patients was not related to prior refined liver dosage, and no estimate of the required vitamin B_{12} dosage could be predicted. Thirty micrograms of vitamin B_{12} given once monthly was adequate in 11 of the 18 patients and inadequate in seven. The vitamin B_{12} dosage varied from 30 micrograms once per month to 100 micrograms every two weeks in this series. Beard and his associates stress that vitamin B_{12}, while a dramatically effective therapeutic agent for pernicious anemia in relapse, apparently is not a complete replacement for liver extract in maintenance therapy of some patients.

Cortisone by Mouth

E. W. Boland and N. E. Headley (J. A. M. A. 145:8, 1951) point out that the necessity for intramuscular injections has made patients treated with cortisone acetate dependent on physicians or others for their medication and has served as a disadvantage to the use of the hormone. Its clinical application would be easier and less expensive if cortisone acetate could be employed effectively by mouth.

Significant, therefore, are their studies in which cortisone acetate was given orally to 23 patients with chronic rheumatoid arthritis. In 22 of the 23 patients oral preparations were found to be highly effective in suppressing the activity of the disease and/or in maintaining control of the rheumatic manifestations. The pattern of improvement with initial large suppressive doses of cortisone given by mouth was similar to that observed in patients who have received equivalent amounts of the hormone by intramuscular injection. In general, the antirheumatic effects were produced more rapidly and were dissipated more quickly with oral administration of the drug. No constant ratio for the oral as compared to the the intramuscular dose could be established. In 13 patients who received cortisone by both routes of administration, direct comparisons were made of the doses needed for maintenance of satisfactory antirheumatic control: the effective dose was approximately the same in two patients, but in the remaining 11 patients larger amounts, ranging from one-fifth to one-third more, were needed by mouth.

No gastrointestinal symptoms developed from the oral use of cortisone. Adverse hormonal side effects occurred in only one patient, but the number of cases studied was too small and the periods of observation were too short for conclusions to be drawn as to the safety of prolonged administration.

Optimum Dose of Vitamin D

According to a note in the *Journal of the American Medical Association* (144: 1019, 1950), M. Levy, M. Saphir and their colleagues have set out to determine the optimum dose of vitamin D for the pregnant woman and the newborn. To this end, they have undertaken a comparative study on (A) humoral contents of calcium, free phosphorus and phosphatase in the mother's blood at the beginning of the ninth month of gestation, at the time of delivery and in the blood of the umbilical cord and (B) the calcium content of the tissues of umbilical vessels. The study was made on 47 women who received 100,000 units of vitamin D per day and on 51 women who were not given vitamin D. In the latter, deficiency of vitamin D and low vascular calcification were frequently observed. The administration of vitamin D increases calcification. The extreme values per 100 Gm. of dry tissue of umbilical cord very between 0.974 and 3.745 Gm., with an average of 1.580 Gm. Without the administration of vitamin D, these same values vary between 0.769 and 1.778 Gm., with an average of 1.163 Gm. The normal calcium content should range from about 1.50 to 1.80 Gm. The workers believe that a standard therapeutic dose of 100,000 units of vitamin D should be given daily during the ninth month of gestation for the maintenance of a normal calcium level. This will result in better calcification in the newborn.

Antibiotics for Whooping Cough

According to J. D. Gray (*Lancet* 2:800, 1950), a controlled trial of aureomycin and chloramphenicol in the outpatient treatment of children with whooping-cough has shown that both antibiotics are effective in reducing the cough-count, but chloramphenicol also lessens the whooping and vomiting and loosens the cough.

Gray calls particular attention to the observation that children receiving aureomycin in powder form also develop a voracious appetite. This association of a voracious appetite with aureomycin dosage is only seen when the antibiotic is given in a dispersed form; it was not reported in any case receiving aureomycin in gelatin capsules, which may be digested in the duodenum. Aureomycin in dispersion, however, comes in close contact with the gastric mucosa, and the effect on appetite may depend on this fact.

Oral Penicillin in Scarlet Fever

In a study covering a total of 356 patients, L. Weinstein and T. S. Perrin (*J. Pediatrics* 37:844, 1950) found that the oral administration of crystalline penicillin G every eight hours for ten days produced rapid clinical improvement and eradication of *Str. pyogenes* from the respiratory tracts of patients with scarlet fever. The optimal oral dose of penicillin for the treatment of scarlet fever appeared to be 150,000 units of a buffered [preparation] given every eight hours for ten days. An adequate blood level of penicillin for only six to eight hours per day appeared to be completely effective in shortening the clinical course, eradicating beta-hemolytic streptococci and eliminating almost completely the suppurative complications of scarlet fever. However, the occurrence of rheumatic fever was not completely eliminated.

Comparison of the results produced by the use of 100,000 units of the drug given every eight hours parenterally with those obtained when the same quantity was exhibited orally did not reveal any advantage in intramuscular therapy. Although the effects noted with oral medication were striking and most adequate, they did not appear to be quite as rapid as those observed when penicillin was given in a dose of 15,000 units intramuscularly every three hours. The differences, however, are too small to be of any, great consequence.

Vitamin B_{12} vs Cold

A potentially important role for vitimin B_{12} is indicated in the report of H. B. Ershoff and E. W. McWilliams (*Proc. Soc. Exper. Biol. & Med.*, Oct. 1950). They found that when young rats were kept at room temperature and fed a purified ration containing the B vitamins in synthetic form only, they grew and developed satisfactorily. But when the animals were kept continuously in a refrigerator at a temperature just above freezing, their growth and development on this diet were markedly retarded.

Adding dried whole liver, or liver extract, or a water-insoluble liver residue to the diets of the rats in the cold room resulted in a marked increase in weight and development. A supplement of the known B vitamins was equally effective. The effects of these diet supplements in protecting against the prolonged cold were attributed, at least in part, to their vitamin B_{12} content.

PERFUMER'S SHELF

Antioxidant Action of Spices

According to a note in *Food Processing* (11:35, Dec. 1950), a study to evaluate the antioxidant activity of 32 common spices when used in fats indicates that practically all show some antioxidant activity and in a few cases the antioxidant effects are very pronounced. In general, such activity is independent of the origin of the spices. Studies are also being made with fractions of whole spices. This data was provided in a preliminary report by the Hormel Institute of the University of Minnesota on research conducted for The American Spice Trade Association.

Study of Chrysactinia Mexicana

In a report of their investigations of *Chrysactinia Mexicana*, L. Lappas, and C. B. Gustafson (*J. Am. Pharm. Assoc.*, Scient. Ed. 39:590, 1950) state that in Texas the plant is distributed in the plains country of the northwest, in Edward's Plateau, and in the Trans-Pesos area where it is known as "false damiana." The drug finds local use as a domestic medicinal agent and is said to be an aphrodisiac, antispasmodic, sudorific, diuretic, antipyretic, and antirheumatic. In their work the authenticated, air-dried aerial portion of this heath-like shrub, with relatively few flower heads present, has been subjected to the usual proximate, qualitative, and quantitative analyses. No extraordinary constituents seem to be present. A sugar, maltose, was isolated from one series of extracts of the prepared drug. Less than one-half of one per cent of a volatile oil was separated from another extract. This oil contained a camphoraceous, ketone-like component. The method of the U.S.P. XII was used to determine the volatile oil in the drug, and yielded 0.45 per cent. The volatile oil was lighter than water, had an aromatic dill to camphoraceous odor, and was colorless at first, gradually becoming brilliant light yellow, probably because of oxidation during the process of distillation. Index of refraction for the colorless fraction at 12° was 1.4720, of the mixture of colorless and colored fractions at 25° was 1.4712. The specific gravity of the colorless oil was 0.9679.

The camphoraceous or borneol-like odor of the oil suggested an investigation for their presence. No phenylurethane derivative of the oil could be prepared, hence borneol or other alcohols were considered to be absent. A semicarbazone was prepared, which suggested an aldehyde and/or ketone. This semicarbazone melted at 193.5° with decomposition; that of camphor melts at 238°.

Odor Measurement

In the *Journal of the American Pharmaceutical Association* (Scient. Ed. 39: 565, 1950), N. N. Tanyolac and J. R. Eaton point out that odors have been difficult to measure and classify with accuracy principally because no objective measuring method has been developed. The mechanism of olfaction is but little understood; several theories have been presented but none has been generally accepted. Their paper describes experiments in which an attempt has been made to detect contamination of the air at concentration recognized by the nose as strong odors. Studies have been made on the change of surface tension of a liquid drop due to air contamination resulting from nearby solid odorous material. The experiments described by these workers indicate that the surface tension of distilled water, mineral oil, and water-stabilized mercury may undergo considerable change when the air in contact with the drop is contaminated. The change of surface tension of a particular liquid follows a pattern characteristic of the contaminant. The same contaminant produces different surface tension changes in the three different liquids studied. The results of these tests suggest that an instrument might be developed which would be capable of classifying and measuring air contamination at low concentrations.

Utilization of Alpha-Pinene

Various studies on the chemical utilization of alpha-pinene, which is the principal constituent of pine root oil and most turpentine oils, were conducted by T. Amemiya, R. Hatta and S. Sakamoto (*J. Fuel Soc. Japan* 20:121, 1950), through *Chem. Abstr.* 44:10354, 1950). They also presented outlines of the experimental results obtained on the synthesis of terpinol hydrate and alpha-terpineol as medicinal or perfume materials and some polychloro derivatives as insecticides. The synthesis of terpinol hydrate from alpha-pinene by means of sulfuric acid was established. Moreover, by the addition of some promoters to sulfuric acid, the yield of terpinol hydrate showed an increase of 15 to 20 per cent. In order to obtain a new effective insecticide from alpha-pinene, the chlorinations of alpha-pinene and its intermediates, such as bornyl chloride, or para-cymene, and the nitration of some intermediates were studied. It was confirmed that the insecticidal effects of these derivatives of alpha-pinene were almost identical or sometimes superior to those of DDT and BHC. Some of the effective constituents of these insecticides were isolated and identified.

Enzyme Theory of Odors

According to an item in *Chemistry* 24:27, Sept. 1950), G. B. Kistiakowsky of Harvard University has developed a new theory on the mechanism of the sense of smell. He believes that odors work through enzymes. An individual gets the odor of a substance because it changes the concentration of one or more enzymes. The change in enzyme concentration produces a signal in certain nerves. The intensity of a smell is related, according to this theory, to the extent to which the enzymes are checked or blocked in their action. The persistence of certain odors may be due to a non-reversible change in the blocking of enzymes, though most of the enzyme blocking is reversible.

German Camphor

According to a statement in the *Perfumery and Essential Oil Record* (41:405, 1950), cultivation of the shrub, *Ocimum canum* in North Germany has now been carried on successfully. This is the camphor bearing variety and work on its essential oil content has been published by Bruns-Runge. He found that the leaves contained 6 to 7 per cent of oil, the leaf buds 8 to 9 per cent, the flowers 6.5 to 7.5 per cent and the bark 5.5 and 8 per cent. None was found in the stems and roots.

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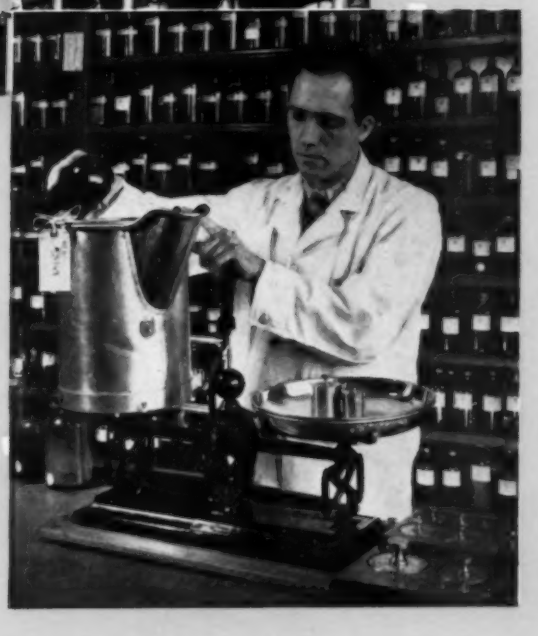

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THE FORCE BEHIND THE PRODUCT...

THERE is much in common between the sterling qualities of human character and the merits of a successful product. In fact, values inherent in the latter usually reflect, with uncanny accuracy, the human equation behind it.

To illustrate this point, let us consider *dependability* as one of the qualities frequently contributing to a product's success. What is this quality of dependability but the consequence of a lofty principle fostered by management and carried to conclusion in the finished product by the men and women engaged in its production?

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FRITZSCHE BROTHERS, Inc.

Pages from Our Perfumer's Notebook

TUBEROSE #16925

For Use In: Perfume extracts, colognes, toilet waters and general cosmetic preparations.

Odor Type: Closely resembles the odor of the natural Absolute of Tuberose.

Remarks: Suggest this be used as a full or partial replacement for the genuine flower oil. Perfumers who have been deterred from using the natural tuberose because of prohibitive cost will welcome this fine specialty.

ABSOLUTE LABDANUM F-264

For Use In: Bouquet, cologne, lotion and toilet water perfumes.

Odor Type: It has the characteristic amber, balsamic, somewhat leathery odor of Cistus Labdanum.

Remarks: This is a natural product that acts as a modifier as well as a fixative in compositions. It is also valuable in soap perfumery.

ROSANLIK

For Use In: All compositions requiring a rose effect.

Odor Type: Reproduces the odor of the natural oil with great fidelity.

Remarks: The price and availability of this product make it of particular interest at this time to every user of rose oil. Strongly recommend that it be given a trial in your formulation, especially if you're concerned about future natural oil supplies.

Specify compound number when writing for samples and other details. Please address us on your letterhead.

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Age and Odor Preferences

It is observed in *Science News Letter* for August, 1950 that adults are partial to rose-like smells, according to a scientist studying people's likes and dislikes in odors; children lean to spearmint and other strong, simple odors.

Spectrophotometric Determination of Cineole

E. W. Martin and J. W. E. Harrisson (*J. Am. Pharm. Assoc.*, Scient. Ed. 39:677, 1950) point out that although cineole (eucalyptol) is important pharmaceutically because of its germicidal and expectorant properties, a satisfactory method for its rapid and accurate determination in medicinal preparations has never been described in the literature.

Within the last twenty-five years a large number of color tests have appeared for the detection of eucalyptol. Most of the colors are developed by reacting cineole with an aldehyde or phenol in the presence of sulfuric acid. The hue and intensity of the colors produced vary with the reagents employed. These have included furfural, anisaldehyde, salicylaldehyde, vanillin, cinnamaldehyde, piperonal, α-naphthol, and β-naphthol. The colors have been described by vague terminology and have been found, during the present investigation, to be unstable. The blue color produced with ammonium molybdate has also been used as a color identity test.

Spectrophotometric examination of the colors produced with various reagents led to the development of a simple and rapid assay procedure for cineole described by these workers. They found that *p*-dimethylaminobenzaldehyde in the presence of sulfuric acid produced a characteristic and reproducible red color with cineole at ordinary temperatures when precautions were taken to control time, concentrations of reactants, and moisture. The *p*-dimethylaminobenzaldehyde reagent (DAB) is prepared by cautiously adding 640 ml. of concentrated sulfuric acid to 400 ml. of water. The mixture is continually cooled. In the cooled acid solution (75 per cent H_2SO_4) is dissolved sufficient *p*-dimethylaminobenzaldehyde to make a 0.5 per cent w/v solution.

In discussing the procedure, it is noted that the pharmaceutical preparation being assayed must be treated in such a manner that all the eucalyptol is brought into solution in anhydrous methanol in a concentration of 50 to 250 μg./ml. The method of treatment will depend on the type of preparation. The actual procedure is as follows: Pipette a 2-ml. aliquot of the solution into a 25-ml. glass-stoppered flask, make up to volume with DAB, and mix thoroughly by repeatedly inverting the flask. Read the absorbency at λ555 in a suitable spectrophotometer six minutes after the reagent is added. The absorbency so obtained may be converted either to micrograms of cineole per ml. by referring to a standard curve or to concentration expressed in per cent by dividing the absorbency by the $E'^{1\%}_{1\,cm}$ value of 28.40.

It is stated that this spectrophotometric method permits the assaying of cineole (eucalyptol) in the presence of menthol, thymol, benzyl alcohol, camphor, and other antiseptics and expectorants. The procedure is simple, rapid, and accurate. Eucalyptol, in methanol solutions containing the above substances, was determined with an average accuracy of ±0.5 per cent.

Turpentine from Siberian Cedar Rosin

In discussing the turpentine obtained from Siberian cedar rosin, A. P. Pentegov and S. V. Netupskaya (through *Che. Abstr.* 44:8104, 1950) state that the turpentine contains 67 to 72 per cent of *alpha*-pinene, traces of camphene, 9 to 11 per cent of *beta*-pinene, 9 to 14 per cent of *delta*-carene, 2.7 to 4.5 per cent of monocylic terpenes (dipentene, etc.), and about 1 per cent of undetermined alcohols. The turpentine is therefore suitable for camphor synthesis. Thus, isomerization with a titanium catalyst (0.5 per cent) gave 75 per cent conversion and 69 per cent camphene, which on esterification gave 72 per cent conversion and 68 per cent isobornyl actate, which was readily converted to optically active camphor by saponification and dehydration.

Florida Cold-Pressed Orange Oil

In his report on a two-year survey of Florida cold-pressed oil of orange, J. W. Kesterson (*Citrus Ind.* 31: No. 4, 10, 1950) presents the results of investigations concerning the relation of four methods of extraction to physical and chemical characteristics of the oil. Correlation was observed between yield or per cent of total extractable oil and quality, as measured by high specific gravity, evaporated residue, index of refraction, aldehyde content and low optical rotation. Optical rotation is attributed chiefly to *d*-limonene which is present in lower per cent in the higher yields because of the greater proportion of higher boiling and larger molecular weight constituents. Climatic variation had some effect on the aldehyde content and index of refraction of the extracted oil.

Mysore Cardamom Oil

Writing in *Current Science* (19:157, 1950), P. P. Krishnan and P. C .Guha, report that Mysore cardamom oil, obtained after steam distillation, showed the following physical constants:

Specific gravity at 26°C.	**0.9250**
Index of refraction	**1.4615**
Specific rotation	**+12.52°**
Ester value	**38.8**
Ester value, after acetylation	**39.5**

It is also observed that the aqueous portion of the steam distillate continued 80 per cent cineole.

Oil of Tanacetum Microphyllum

According to C. Torres and J. Ruiz-Seiquer (*Rev. real acad. cienc. exact., fis y nat. Madrid* 43:287, 1949, through *Chem. Abstr.* 44:9122, 1950) the plant, *Tanacetum microphyllum*, which shows relationships to the chrysanthemum family, has a limited distribution in Spain. The oil, obtained from the flower heads, is reddish green, and has an odor like that of the plant itself and a bitter taste. It has the following physical and chemical constants:

Specific gravity	**0.9196**
Index of refraction	**1.4563**
Specific rotation	**+34.65°**
Acid number	**6.63**
Ester number	**44.3**
Ester number, after acetylation	**142.7**
Hydroxyl number	**91.77**

Fractionation yields 58.9 per cent of the oil that appeared to be a single substance with the following properties:

Specific gravity	**0.9266**
Index of refraction	**1.4563**
Specific rotation	**+48.18°**
Acid number	**4.2**
Ester number	**25.7**
Ester number, after acetylation,	**84.26**
Hydroxyl number	**54.62**

This fraction gave the physical constants, the semi-carbazone, and the 2, 4-dinitrophenylhydrazone corresponding to *beta*-tuyone. Other fractions, melting at 127-33° and 134-8°C., were insoluble in ether at 25 to 35°C. and soluble in water.

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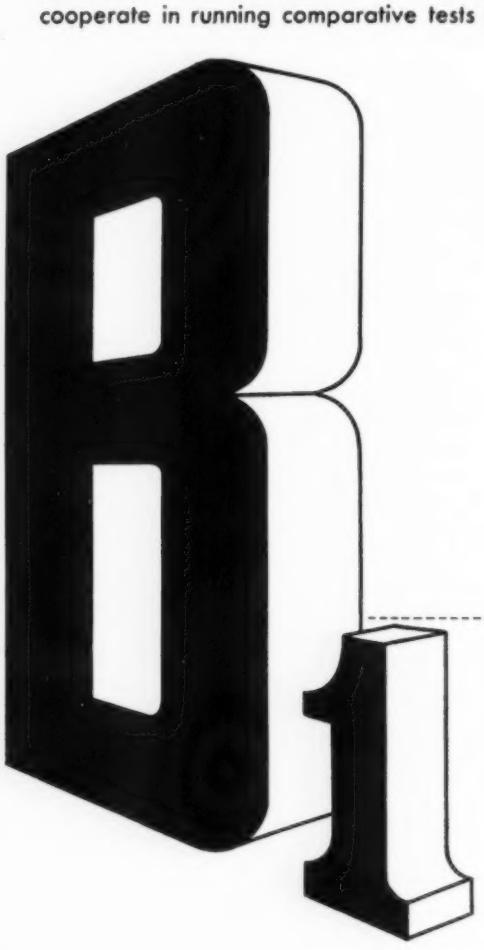

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ABREAST OF THE MARKETS

CHEMICALS AND ESSENTIAL OILS UP SHARPLY PRIOR TO JAN. 25 PRICE FREEZE; CONTROLS OPPOSED BY SOME

Commodities in the essential oil and chemical fields advanced so rapidly and frequently last month that prices quoted in this issue may be far out of line by press time, depending, of course, on the rigidity of the recent price freezing order. The indecisiveness of the Korean war, both on the battleground and behind the U.N. doors, up to the end of January, has understandably caused consumers in the United States to enlarge their immediate stockpiles of raw materials. Uncertain as to whether this "police action" will be restricted to the confines of Korea or will suddenly flare up into a third world war, consumers are taking extra precautions. Where they might have had a year's material in warehouse, for example, they are exceeding their normal purchases in order to build up a warehouse stock of a year and a half.

This activity in the United States, plus the fact that many other countries in the Western World are again in a position to compete for world markets, has created an abnormal demand, and with it, higher prices.

The announced determination on the part of America to remain in Korea undoubtedly had a strengthening effect on the commodities, in addition to the move on the part of the United States Senate and House of Representatives in voting to bar Communist China from obtaining a seat in the U.N. Spokesmen in the trade declare it is very difficult to plan even a month ahead, and will continue so, until the Communist dilemma is solved.

In the meantime, as the world awaits U.N. action, international commerce is disturbed, and war preparations in this country are being accelerated.

One favorable note has been added to the long-range supply picture of the essential oils by Dr. Ernest Guenther, vice-president of Fritzsche Brothers, Inc., who recently returned to this country from a four months' trip to the West Indies, South America, and Central America. It is his contention that most of the essential oils normally obtained from the tropical Far Eastern countries could be produced, under organized and intelligent research, in the tropical regions of South and Central America. It would take many years of experimentation and careful study to arrive at a favorable result, but he believes it can be done.

As some examples already under way, Dr. Guenther states that in Sao Paulo, Brazil, natives are experimenting with a good grade of patchouli oil, as well as with geranium, cassia, and cinnamon oils. In Guatemala, the annual production of citronella oil is about 1,000,000 pounds a year, and that of lemongrass oil, about 200,000 pounds. Experiments are being carried out on the oils of coriander, geranium, palmarosa, and patchouli, while cardamom is already being produced.

It is too early yet to determine the effect of the January 25th price freeze on the essential oil and botanical markets, especially where imported goods are concerned. It is also too early to discuss its effect on domestic items since many adjustments will probably be made before the government arrives at any fixed policy. Michael V. DiSalle, director of Price Stablilization, stated during the latter part of January, that those commodities which have no significant effect on the cost of living will be removed from the blanket freeze order in the near future. The problem therefore remains to determine which items affect the cost of living and which ones do not.

The idea of price fixing met with considerable opposition in the trade, several sources basing their arguments on the difference in world conditions between the present time and the total-war days of the 1940's. During World War II, the United States was the only major importing nation in the world, the European and other countries having been overrun by troops, devastated by bombing, and restricted by wartime economies. At that time, therefore, foreign exporters could sell their products to America only, and had to abide by the price ceiling in force, if they wanted to do business fairly.

Today, on the other hand, if a foreign country cannot get the price it desires in the United States for certain commodities, it can explore the possibilities in the rehabilitated European countries, in England, and in others. This is one of the reasons we have not been buying any menthol from Brazil for a long time —Europe has been paying top prices. Spokesmen in the trade contend that the U. S. will be deficient in many of those imported items which are governed by price control if the source countries choose to sell to the highest bidder.

The actual case of an exporter quoting his commodity to an American dealer at a price higher than that of the U. S. ceiling came to our attention on January 29. A dealer in vanilla beans stated that he had to postpone placing an order with a concern in France because the latter was offering vanilla beans at a price over what he could sell them for, under the recent price-freezing order. He had been contacting government officials to see if his particular commodity was under the control of the Price Stabilization order.

These spokesmen also believe that if prices were left uncontrolled in essential oils and botanicals, they would, naturally, continue to advance while consumers were increasing their stockpiles against any future emergencies. There would soon come a time however, when these consumers would cut their purchases down, needing only to replace the material from month to month as they used it up. A second factor might be that the prices would go up so high that consumers would resist buying after they had completed their stockpiles, and the prices would fall to a more acceptable level of their own accord, in compliance with the law of supply and demand.

(Continued on page 242)

• Prices quoted in this section were current on the first of this month.

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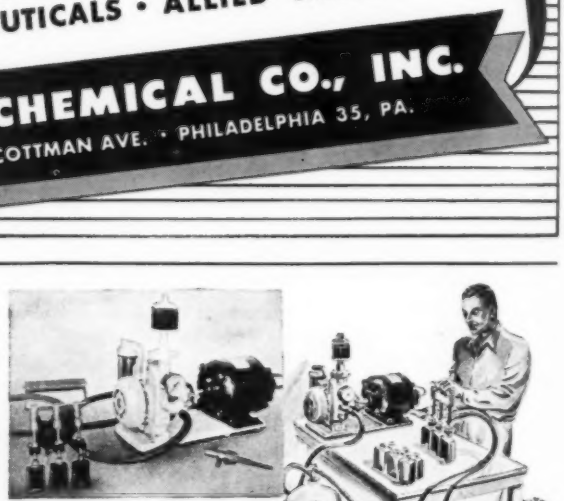

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MENTHOL TRADE WITH EAST HALTED, BRAZIL MAY ENTER THE MARKET WITH U.S.; DISCUSS POTATOES AS ALCOHOL SOURCE

In spite of the arrival of about 4,000 cases of menthol in this country during the last month or two, this temporary supply has not eased the over-all situation to any great extent. Prices were up $1 over the previous month and will probably continue to advance beyond the current range of $14.50 to $15.

By the middle of the month China was all but cut off as a source of the material to the United States, following the embargo of December 17. Great Britain, in fact, was offering menthol to this country which it had received from China.

Japan probably will not enter the menthol picture very effectively for quite some time, which means the entire load will be placed on Brazil—unless, of course, the peace feelers which the East and West were exchanging toward the end of the month develop into a full-fledged truce. Under these conditions, the entire trade relationship with the Eastern world may change abruptly.

The trend in the menthol market by the end of January indicated that Brazil prices would probably climb higher, since at that time there were no actual competing markets, although the possibility loomed that England might compete with Brazil by reselling Chinese menthol.

In general the larger consumers were well protected for the rest of the winter season on their expected requirements, but the small users may yet feel the pinch before spring arrives.

Alcohol Remains Tight

The over-all situation in alcohol remained very firm, with the prices for Denatured No. 1 Special ranging from 90½c for carload lots to $1.02 for less than carload, and $1.06 for 18 drum lots. No real shortage was in sight by the first part of February, or even suggested, because consumers were obtaining their allotments of alcohol through monthly permits.

The subject of potatoes as a source of alcohol cropped up again, with reports that the government was negotiating with leading distillers to produce 12,000,000 wine gallons of alcohol. The argument offered was that the Agriculture Department had held up the dumping of 12,000,000 hundredweight of Maine surplus potatoes, pending a decision on alcohol production for the synthetic rubber program.

Major distillers have indicated they can deliver the alcohol at 96c a wine gallon, only if the government agrees to absorb the cost of loading the potatoes on freight cars in Maine—this amounts to 10c per hundredweight. There is an additional freight cost, which has been estimated at 50c per hundredweight to Philadelphia and 55c to Baltimore, where the distillers have processing capacity available.

Since a hundredweight of potatoes makes about one gallon of alcohol, this means that there is a basic loading and shipping charge of 60c for every gallon of alcohol, even before the potatoes have been converted. This is what the distillers are urging the government to partially absorb. The Agriculture Department declares it is not allowed to absorb these costs and cites that the law merely permits the government to spend for the disposal of the potatoes, which amounts to a few cents a cwt.

The government is now advocating grain for future defense purposes, rather than for current alcohol production, and therefore, the next few months should reveal just how much value the surplus potatoes will be in alcohol production.

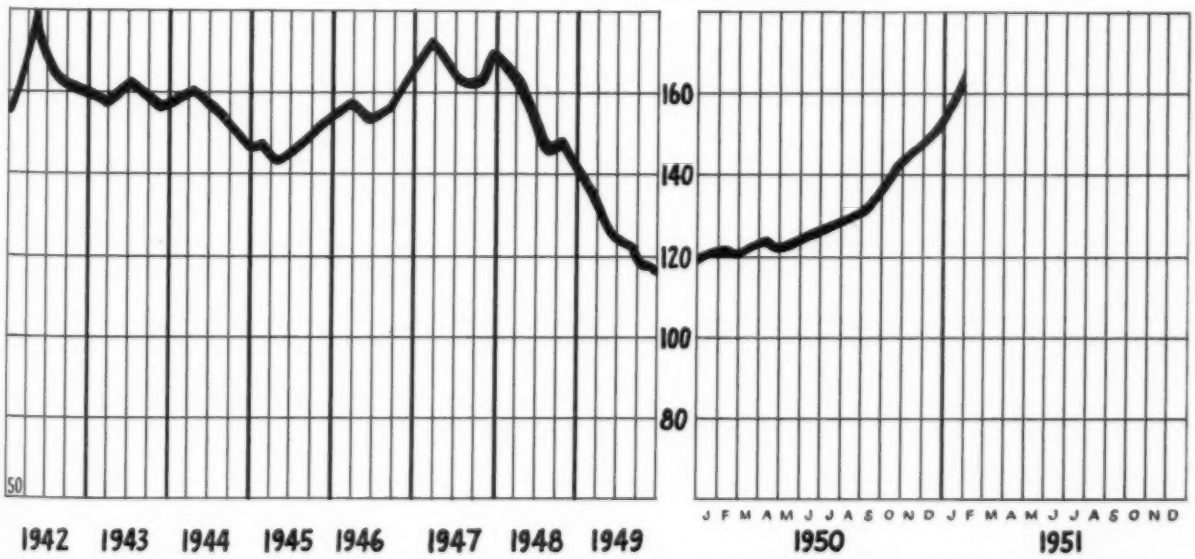
Some sources in the trade have looked with disfavor on the potato plan, saying that alcohol plants are not prepared for this work and would have to undergo extensive alterations. There is no way of telling just how far this plan will go.

At the same time, the price of blackstrap molasses is up to 34c a gallon in Louisiana, Alabama, and Texas, while New York spot prices ranged from 36½c to 37½c. The supply situation here is acute, with no relief expected until March when Cuban and Puerto Rican deliveries may arrive.

Lanolin Higher

The cosmetic grade of lanolin advanced to 34c last month as a result of

50 Raw Materials—Weighted Price Index. 1926 = 100.



The price index of fifty commodities for January advanced from 154.5 to 166.4.

JANUARY PRICE CHANGES

UP

Alcohol Denatured No. 1 Spec. 17c
Anise oil, USP 50c
Apricot Kernel Oil 6c
Arabic Gum, White No. 1 10c
Balsam Copaiba S. Amer., USP 20c
Balsam Peru 15c
Balsam Tolu 25c
Bay Oil 25c
Beeswax White 8c
Benzoin Gum, Siam 50c
Bergamot Oil 55c
Bois de Rose, Brazilian 25c
Cade oil 5c
Calomel $1.55
Candelilla Wax 4c
Carnauba Wax No. 1 21c
North Country No. 3 23c
Cassia Oil, Redist. 50c
Cedar Wood oil 5c
Citronella Oil, Ceylon, 35c
Java 25c
Clove Oil 75c
Cod Liver Oil USP 10c
Cubebs oil 25c
Cumin Seed, Morocco 21c
Elder Flowers 10c
Ergot $2
Eucalyptus Oil 45c
Grape Fruit Oil 75c
Ipecac Root 50c
Lanolin 4c
Lavender Spike Oil $1
Lemon Grasss Oil $1.25
Mace Oil, Dist. 50c
Magnesium Stearate 2c
Menthol, Natural $1.50
Mercury Metal $105
Mercury, Red Precip. Powd. $1.55
Mercury, White Precip. $2.10
Nutmeg Oil 50c
Orange Oil, Amer., Cold Pressed 25c
Orange Oil, Amer. Dist. 10c
West Indian 60c
Ouricury Wax 9c
Papain, Pure, Powdered 40c
Paraffin Wax 1c
Peppermint Oil Natural 25c
Petit Grain Oil, S. A. 25c
Pimento Berry Oil 25c
Pimento Leaf Oil 10c
Safrol 15c
Senega Root 15c
Silver Nitrate 3¼c
Soap Bar, Whole 6c
Spearmint Oil 35c
Spermaceti 4c
Wormseed Oil $1.15
Zince Stearate 2c

DOWN

Ginger Oil $1
Japan Wax 4c

increased manufacturing costs and a developing wool shortage. No relief was expected during the first half of the year at least.

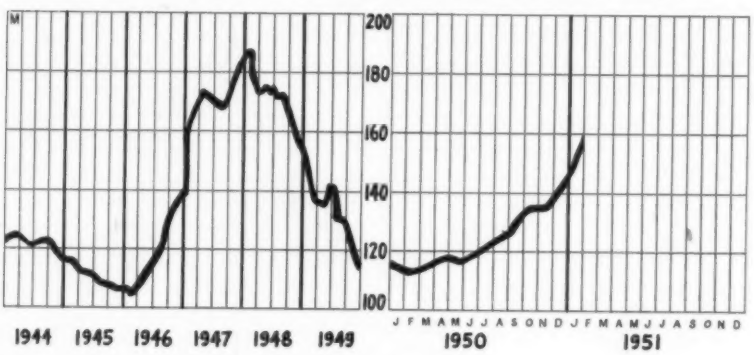
Controls Opposed By Some

(*Continued from page 239*)

On the other side of the economic fence are those spokesmen who declare that since England, for the time being anyhow, has been dropped from the Marshall Plan list, and since European countries have only just recently become pretty well stabilized, their needs are limited, and so are their funds. Foreign speculators who may not be able to sell to the American market because of price ceilings, might sell for a limited time to these other countries, until they become saturated.

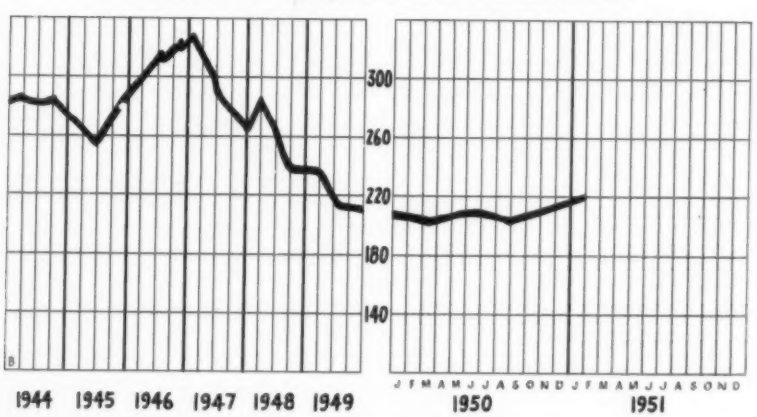
When this point is reached, the exporting countries would be required to reduce their prices to re-enter the American market under the price fixing program.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index advanced from 145.4 to 160.3. Alcohol, cod liver oil, menthol, and mercury were higher.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index advanced from 218.6 to 220.7. Balsam tolu, ergot, and ipecac root went up.

Quicksilver Soars up to $230

Quicksilver shot ahead twice in January, first from $130 a flask to $160 on January 8, and then again up to $200 on the 18th of the month, f.o.b. Spanish ports, which meant a spot price of about $230. The Italian government was not exporting any metal yet, since, according to reports, it had none to spare after fulfilling commitments. American mines were still virtually all closed down by the end of January, with prospects of their opening subsequently, especially with the price of the metal up to such an attractive level.

The current $230-price of quicksilver is over three times as much as the $71 figure eight months ago in June, 1950. From that time on it advanced each month, slowly at first, and then more rapidly as the country's rearmament program speeded up. In July it was $75; August, $80; September, $87; October, $90; November, $107; December, $125; and $230 for January, 1951.

Mercurial, Silver Salts Up

Mercurial and silver salts went ahead during the month, following the abrupt rises of the respective metals. Calomel is up to $4.02, mercury powdered red precipitate is $4.37 a pound, and the white precipitate is $5. Silver nitrate advanced to 56 5/8c for 2500 ounces.

The official price of silver metal advanced to a 30-year high last month, 90.16c an ounce, representing an increase of 10.16c over the 80c quotation in effect since October, 1950. At the lower figure, there had been no offerings of foreign silver. Since demand for the metal continued to mount, this caused a large backlog of orders.

This lack of supply forced dealers in this country to buy domestic silver

at the U. S. Treasury price, 90½c per ounce 1000 fine, as established by law. Foreign sources of the metal were said to be holding out on shipments to the United States, waiting for a price advance up to the 90½c level which the Treasury must pay for all domestically mined metal.

As for the silver mines in this country, there was little incentive for the producers to sell to commercial buyers prior to the recent advance, when they would automatically be assured the 90½c price from the Treasury.

Should the price of foreign silver exceed that of the domestic silver, the Treasury may enter the market and release silver for commercial uses, as it did during the second world war.

Cod Liver Oil Up 10c

Cod liver oil went ahead 10c a gallon at the end of the month and is now quoted from $1.90 to $2.00, with future price movements entirely dependent on the production of the fishing season under way in Norway which extends through April.

The recent advance was also brought about because of the small carry-over of the oil from last year, with absolutely none at all coming from Norway. This condition, in turn, was caused by the strikes among trawlers of producing nations last year, as well as the increased demand for cod liver oil by European countries.

Bois de Rose Oil Higher

Bois de rose advanced to 75c a pound, with some reports that shippers were tending to hold back on orders, awaiting higher prices. The oil has been placed under barter, according to *Foreign Commerce Weekly*, against the importation into Brazil of any licensable commodity from any country. The Export-Import Department of the Bank of Brazil has been authorized by the Foreign Trade Consultative Committee to permit such barter transactions.

Bergamot Oil Up

Bergamot oil advanced to $7.30 in January, mainly because very small offers have been arriving from Italy, the only source of supply. Little relief is in sight for any new crop material until distillation gets under way. European buyers have been offering higher prices than American dealers and have therefore been buying a large part of the available supply.

Lemongrass oil advanced $1.25 in early January, to the range from $4.00 to $4.50.

Citronella Oil Tighter

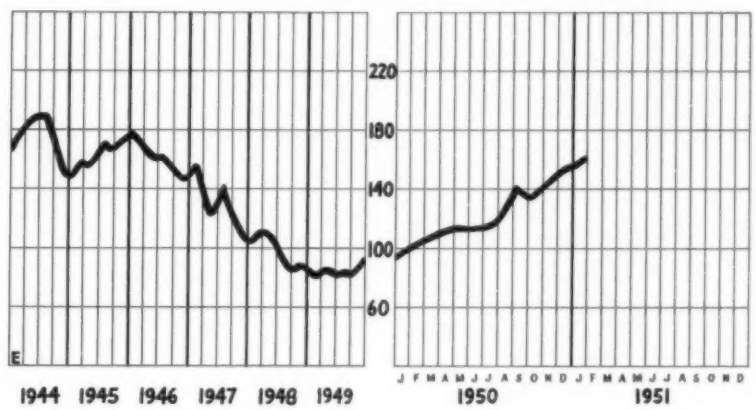
Ceylon and Java citronella oil both advanced in January, the former by 35c to the range between $2.10 and $2.50 and the latter, by 25c, to the range between $2.65 and $2.75. According to reports, the oil had become quite tight, mainly because of an increased demand from England. This has used up a large amount of the Ceylon oil.

Orange Oil Still Higher

Orange oil went ahead 25c last month, establishing the range between $2.25 and $2.75 for the American, cold pressed, and $1.00 for the distilled. West Indian oil was also up, having advanced by 60c to $2.85 on the inside and $3.25 on the outside price. Production of the oil in Florida has been curtailed so greatly that this source can be written off for the present. The possibility always exists, however, that former producers will jump into the market again, especially since the price has reached such a high level. One spokesman has suggested that Florida producers may resume orange oil operations, only on a limited production schedule to keep from flooding the market, in contrast to June of last year when copious supplies of the oil were available at 49c a pound.

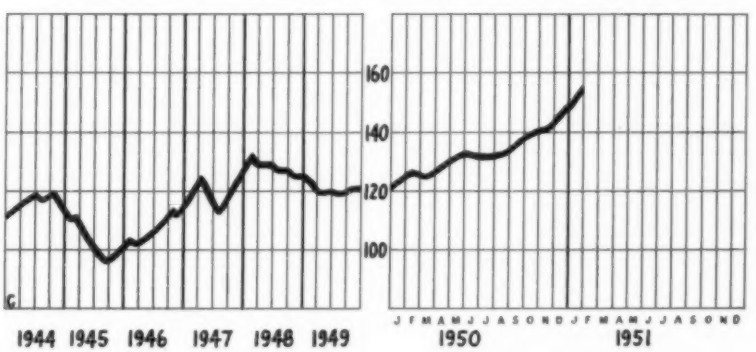
Other sources in the trade have expressed the belief that orange oil producers would either go into full production, or no production at all. They may resume operations for short periods of time and then wait for the stocks to be consumed, to prevent over-supply. Such an arrangement, however, might prove too burdensome.

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oils index climbed from 153.9 to 163.8. Anise, bergamot, bois de rose, cassia, citronella, clove, eucalyptus, and peppermint oils were higher.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



The cosmetic raw materials index advanced from 149.2 to 155.0. Alcohol, arabic gum, balsam peru, balsam tolu, beeswax, candellila wax, lanolin, menthol, paraffin, and spermaceti went up. Japan wax went down.

Patent Thoughts and Trends

(*Continued from page 225*)

benzylcinnamate, benzyl salicylate, menthyl salicylate, aesculetine, salts of quinine and umbelliferon, although on theoretical grounds capable of a substantial amount of ultra violet absorption, are practically valueless when used in a thin film even in concentrations in excess of what could be tolerated by the skin.

In order to have a reliable means of determining anti-sunburn efficacy, Isermann suggests that a filter, such as fused calcium phosphate colored with oxides of nickel and cobalt, and which admits only physiologically active rays and rejects the visual and infra red rays, be used. The radiation through this filter is then measured by means of a suitable photo-electric cell, as for example, a copper oxide cell, connected to a highly sensitive micro-ammeter.

The preferred ingredient found by Isermann is benzyl-amino-ortho-benzoic acid. Other effective agents are the methyl- and di-methyl-amino-ortho-benzoic acids; the butyl, propyl, amyl and higher derivatives: as the lauryl, myristyl and cetyl compounds.

Claim 1 is illustrative of the coverage:

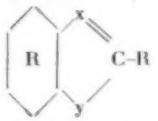
A cosmetic effective in thin films to retard ultra violet absorption containing as an active ingredient an amino or substituted amino-ortho-benzoic acid in concentrations of less than 5 per cent.

U. S. 2,104,492—issued Jan. 4, 1938 to Erich Merkel et al, assigned to Winthrop Chemical Co.

Light filtering agents suitable for use as anti-sunburn substances are imbedded in organic, film-forming substances. As such light-filtering agents can be used those corresponding to the general formula, R-X=C-R, where R is an aromatic nucleus and X denotes either nitrogen or a methine group. As specific examples of such agents the patent disclose stilbene, 2-phenylindole, 2-phenylbenzimidazole and 2-phenylbenzoxazole. The usual bases of skin creams or ointments may be employed as film-forming substances.

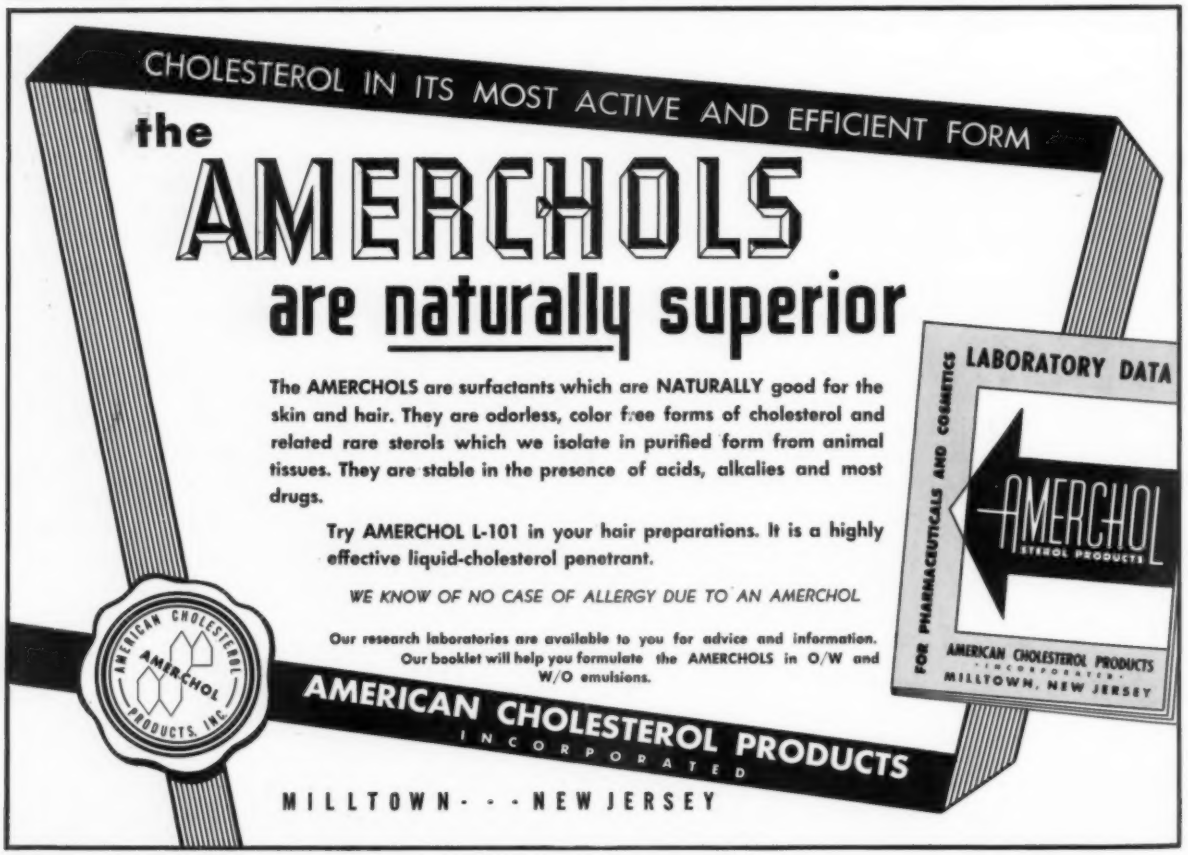
Claim 1 is illustrative:

A medium which protects the human skin from the noxious rays of ultra violet light but does not exlcude the rays effecting tanning of the skin, which medium contains a fatty vehicle and, homogeneously dissolved therein as the light absorbing agent, a small quantity of a practically colorless, non-poisonous compound corresponding to the general formula



in which R denotes an aromatic radical, x denotes nitrogen or a methine group and y denotes a group of from 1 to 2 ring-members, which compound has a high and simultaneously steep slope of the absorption curve towards the shorter wave length in the range between about 320 and about 350 mμ, said slope corresponding to an increase of the logarithm of the molar extinction coefficient by at least 1 within a range of 10 mμ, so that at least the value 3.2 is reached.

U. S. 2,118,566—issued May 24, 1938 to Gilbert De Wayne Miles.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On the basis that a pH of 5.5. is desirable for the skin as a protection against bacterial infection, Miles suggests the incorporation of buffers to yield cosmetics having a pH of from 4 to 7.

The invention is not limited to the use of any particular buffer but for purposes of illustration buffers such as dibasic sodium phosphate, citric acid, lactic acid, borax, amalonic acid, sodium citrate, sodium phosphate and boric acid are suggested.

The invention is broadly covered as shown by claim 1:

A cosmetic for application to the skin comprising a base material and a buffer composition to maintain the pH of the cosmetic at a point between 4 and 7.

U. S. 2, 120,569—issued June 14, 1938 to Osmer F. Oliver, assigned to The Tri Dermis Company.

A paste or emulsion formed of suitable proportions of a hard soap, a starchy material, an alkali metal silicate, a water soluble oil-resistant emollient and water is said to be an exceptionally efficient skin protectant.

Resistance to oils, greases, paints and the like is claimed to be provided by the combination of starchy material and water soluble silicate. The hard soap acts as an emulsifier. The emollient aids in keeping the composition soft and is supposed to be beneficial to the skin.

Claim 1 is illustrative:

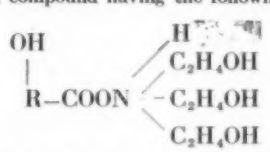
A new composition of matter adapted for protecting the skin and like surfaces from grease, oil, paint and the like consisting of an emulsion comprising proportionately a soap in the amount of 74-90 ounces, at least 50 per cent by weight being sodium soap, sodium silicate in the amount of 110-180 ounces, glycerine in the amount of 65-120 ounces, starch in the amount of 10-15 ounces, water in the amount of 20-45 pounds, and a few ounces of oil.

U. S. 2,128,334—issued Aug. 30, 1938 to Frits E. Stockelbach.

U. S. 2,041,874 discloses menthyl salicylate as a sunburn preventive. Its disadvantage is its water insolubility. This disadvantage is overcome by using certain reaction products of salicylic acid, such as trihydroxy-triethylamine-salicylate, trihydroxy-triethylamine-orthocresotinate and trihydroxy-triethylamine-ortho-beta-hydroxy-naphthaoate.

Claim 6 gives an idea of the coverage:

A cosmetic for preventing sunburn, comprising approximately 5 per cent of a compound having the following formula:



in a vehicle, and where R is a benzene or naphthalene nucleus and the hydroxyl group which is linked to the nucleus and carboxyl group are in ortho relation.

RECENT PATENTS

***2,529,886*—Artistic Beauty Products—Cold Waving Process—Involves use of Nitroferricyanides as "Neutralization" indicators.**

***2,531,190*—E. F. Drew & Co.—Emulsifier consisting of alkylolamine-fatty acid condensation products and esters of Polyglycols.**

2,531,359—**S. O. Ronk & L. R. Hunter—Activator Solution for Machineless Hair-Waving Pads.**

2,531,367—**Sharpe & Dohme—N-(Substituted Sulfonyl)-Aminobenzoic Acids.**

2,531,439—**National Lead—Vitamin Enriched Product.**

2,531,595—**Sterling Drug—Preparation of Alpha-Acylamino-Alpha-Substituted Acetic Acids.**

2,531,667—**B. J. Brent—Administering Repeated Injections.**

2,531,688—**Glaxo Labs.—Esters of 7-Halogeno-Cholesterol.**

2,531,712—**Merck—Crystalline Salts of Riboflavin.**

2,531,754-6—**Am. Cyanamid—Coccidiosis and Turkey Blackhead Control Compositions.**

2,531,869—**Wyeth—Streptomycin Recovery and Purification.**

2,532,055—**Wyeth—Pyridone Derivatives.**

2,532,206—**Vodol Co.—Ointment Base of Glycerine with Phosphatide and Petrolatum.**

2,532,233—**Dow—Dihydroxydiphenyl Coccidiosis Control Composition.**

2,532,292—**G. D. Searle—Diarylmethyl Ethers of Amino Alkanols.**

2,532,340—**G. D. Searle—2-Trihalomethyl-1,3-Dioxolane-4-Carboxylic Acids.**

2,532,348—**Albert Szent—Gyorgyi et al—Blood clotting Preparation.**

2,532,393—**Merck—Hydrochlorides of Streptomycin Oxime and Streptomycin Amine.**

2,532,403—**Merck—Pyrogen removal from Streptomycin Salts.**

Rouges

(*Continued from page 181*)

important was the difficulty of controlling the shades properly. This discrepancy was due largely to the non-uniformity of conditions in the ball mill, where the release of heat caused by percussion could not be controlled and where the particle size of the powder also varied. Both these factors had an effect on the shades and very often the color of the film on application would compare favorably with a standard, but the color of the cake itself would not. Matching of the shades therefore was the most important part of manufacture and could be done only by people with long experience. At that time colors were referred to as possessing both an undertone and top tone, which varied somewhat from each other. Actually this was a function of the particle size of the dispersed pigments.

It is now possible to grind the powders to so fine a particle size that the top tone no longer differs from the undertone, obviating the highly skilled matching problem and also allowing the consumer to see how the film would look on application by merely looking at the cake. It further has the advantage of causing a smaller amount of lakes finely ground to yield the same tinctorial effects as a larger amount not as finely ground.

The introduction of the hammer mill started this change in rouge processing. Other grinding mills have since been introduced particularly the mills which are motivated by a jet of air under high pressure to cause the particles to break down by collision with each other. In the final analysis, however, it is the smaller particle size, however achieved, which makes the proper color dispersion possible and when it is reduced to the proper particle size, external conditions such as humidity and aqueous films have little effect on the intensity and tone of the transmitted color. The most modern methods of cake rouge manufacture therefore consist of:

(1) Mixing of the powdered ingredients intimately.
(2) Grinding of the powder to an appropriately small particle size.
(3) Checking and matching of the shade.
(4) Addition of an appropriate amount of water and essential oils and binder.
(5) Regrinding and mixing.
(6) Pressing.

The amount of binder used is dependent on the other ingredients and the particle size of the powder. The smaller the particle size the greater is the area of the total surface of a given weight of material. Since the function of the binder is to cause the particles to cling to each other, the amount of binder to be used should be proportionate to the area to be treated—not the weight.

The optimum particle size of the mixed powders lies in the range of about one micron, since at this point the greatest reflectance of light is possible. Reduction of particle size to a point too far below this range would no longer reflect light as effectively.

In the final processing the pressure decided on should yield a cake which rubs off with a puff easily but not too easily. Rouges are used sparingly and the amount of rub off should be somewhat less than required for an application. The particles comprising the film in addition should be capable of almost infinite spreading by means of the puff so that the film may be graduated from a field of high intensity of color to a point where it gradually fades to no color at all. Too large an amount of powder would make such an effect difficult. Other functions can best be achieved also by numerous small particles rather than by fewer large particles. Opposing this function is the problem of adherency so that the cake will not disintegrate with either a jolt or by numerous abrasions of the puff. This filter is best controlled by the binder and the pressure used. Actually what is optimum is a cake whose particles are capable of clinging to each other despite jolts which the product will normally encounter, but be capable of separation from each other by gentle abrasion of the puff at the point of contact. Reaching the optimum between these opposing forces will give the manufacturer a good rouge.

Cream rouges though not as popular as are the cakes are capable of duplication of function. Whether or not the variation in sales as compared to the cake is due to the fact that the cream must be applied with the finger tip is debatable, but not impossible.

In this system we have a lipoid like base stiffened with waxes into which the lakes are ground. The character of the base will ultimately be transmitted to the qualifications enjoyed by the rouge. The base should be soft so that application would be easy but hard enough to withstand summer temperatures. Appearance in the container should be force of "sweating." In my own experience I have found that these effects can best be achieved by depending on a thixotropy to cause the product to set up to a desired consistency. Easy application can then be achieved by causing the proper amount to be applied to the finger by mild pressure. In its formulation therefore waxes should be included that best give the desired thixotropy. Such a base would therefore contain some carnauba wax and beeswax, since beeswax is better capable as a counter sweating agency than are the other waxes in my own opinion. The choice of oils for application are varied and are primarily dependent on the thickness of the applied film since lower viscosity oils would give thinner films. The choice may therefore extend from isopropyl myristate and other mono hydric alcohols to fatty acids through the viscosity range offered by the mineral oils up to castor oils. Hydrogenated oils may also be included since these materials offer a convenient mid way point between oils and waxes insofar as melting points are concerned, but they should be classified as low viscosity oils. Lanolin is another material which may be classified almost as a common solvent and by its pressure has a tendency to make the oil and wax mixture more homogeneous. The greater this homogeneity, the less danger would there be of "sweating."

It should be understood that upon cooling the wax base is not a true solution. If it were, thixotropy would not be possible. To avoid sweating, however, there should be no component in the system which is too completely incompatible with another unless there is a common solvent to bridge the gap.

Manufacturing is accomplished by first melting the waxes together and then adding the colors—usually anywhere from 7 to 12 per cent of the mixture—to it and grinding through a roller mill. The mass is then remelted and incorporated air allowed to escape and poured into containers. Pouring temperature and cooling rates should be kept constant since these factors effect the apparent thixotropic hardness of the mass.

No attempt has been made to introduce any specific formulas as an example. It is hoped, however, that the information underlying formulation is complete enough to help the formulator to proceed to any desired objective.

Cosmetics and the Druggist

(Continued from page 173)

These products have other valuable retail virtues. They are clientele builders because, unlike the single specialties of the mass market, many provide the basis

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of planned cosmetic usage, such as facial or cream treatments, hair care, make-up, etc. They provide a broad coordinated sales program which justifies and makes personal selling profitable.

The great plus dividends of the retailer who stocks perfumes and cosmetics is in gift sales. This is to some extent an every day business but the real promotion opportunities are limited to a few periods such as Easter, Mother's Day, Father's Day and in great volume the thirty to forty days preceding Christmas. Overwhelmingly, the gift business in perfumes and cosmetics, a major preferential factor of these products, falls within the franchise classification.

The relative security of the franchise product for business building, historical stability of sales, nearly universal usage and a highly favorable margin between cost and sales price is now the reason for many retail successes based upon primary specialization in perfumes and cosmetics. The retailers who have attained a specialized position in perfumes and cosmetics include hardly more than 4,000 out of the 54,000 drug stores. The total number of these retailers, strangely enough, has not increased drying the last 10 years. Yet in this period the number of wage earners reporting an income of $3,000 and over annually have increased 400 per cent. Population, in this period has increased by 20 million people and growth in many communities has been expanding like land booms. That basically is why so many manufacturers of perfumes and cosmetics using selected distribution are convinced that excellent opportunities await additional retailers who will qualify for franchise recognition.

The essence of this recognition is personal selling. But it is personal selling that seems to hold the greatest promise for the druggist who must shrink from the hazards of super-market imitation and who seeks an independent and a different avenue to business security and profit.

In no other products of any retail division will the druggist find such an abundance and variety of planned sales helps and promotions as in the perfumes and cosmetics of selected distribution. Here an unqualified assent to retail preference must be given. The retailer who thinks in terms of selling, who is alert to promotion opportunities, who seeks help and advice in sales training and sales helps will find no lack of ready, eager, competent manufacturers only too willing to extend this aid.

It is not easy for a retailer to enter into a new field of specialization. In addition to a study of his own community market, to giving careful study to the preferential retail status of the class of products selected for specialization, he must examine his own experience, technical knowledge and inclination to favor products of this kind.

For many druggists these warnings and qualifications include no serious hazards. Their experience and technical knowledge in the ways and vagaries of perfumes and cosmetics, while not specialized, is at least grounded on a fundamental education closely allied

to this industry and at least a basic experience with its utility products.

There remains for many druggists, who will find their store location and their community standing providing real opportunities for specializing in perfumes and cosmetics, only the inclination or a personal interest in these products as a factor in this decision.

As such a druggist examines in greater detail all of the varied factors that enter into a realistic and prudent comparison of cosmetics and perfumes with other possible fields of specialization, his interest or inclination to favor these products is likely to sharpen.

Flavor Problems in Pharmaceuticals

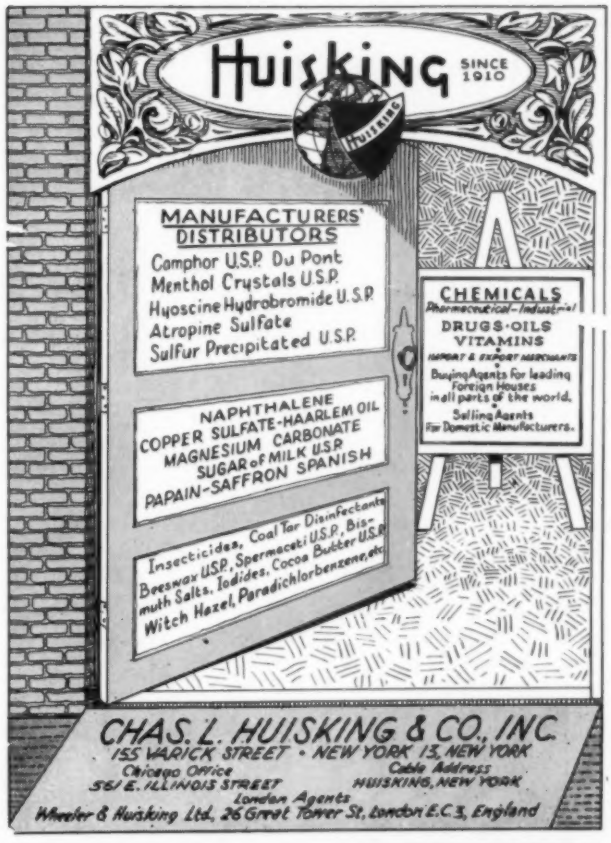
(Continued from page 175)

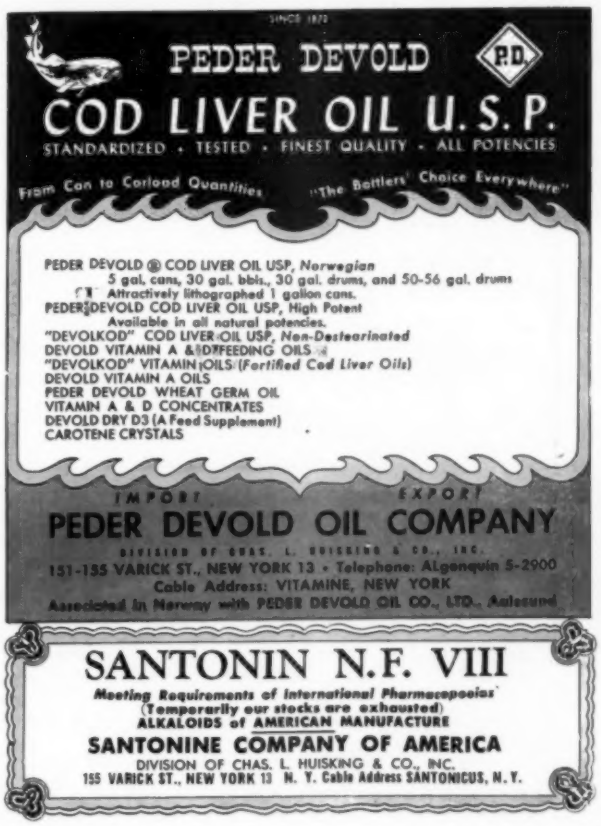
of fluid extracts of sarsaparilla and glycyrrhiza, oils of sassafras and anise, methyl salicylate, alcohol and syrup. These formulae are detailed not because they are new or something to be memorized, but to illustrate the functional use of the various ingredients. The fluid extracts may impart complete flavor, both aroma and taste, and consistency. The essential oils are more important as aromatic or odorous constituents. The sugar is a constituent affecting taste and consistency. Gelatin affects consistency and also serves as a dispersing agent. Flavor is thus seen to be a complex mixture so balanced as to effect a desirable result which may be more effective by virtue of its flavorless than by its flavorful ingredients.

Sweetness, as noted, is important in increasing palatability since it is almost universally liked. In cases where the application of sugars is limited, saccharin and, more recently, Sucaryl are extensively employed. Since flavor types have associations with various tastes, it is essential to bear this point in mind when making a selection. For example, vanilla is associated with sweetness, caramel is associated with sweetness and fat, lemon with acid and spice with salt.

The practical aspects of a non-flavor ingredient are emphasized in the application of color. It has been said that color is the most important property of a food. A food with a natural color will be preferred in flavor to one which might otherwise be selected by a blind flavor test. There is no doubt of its psychological value and despite the efforts of the flavor chemist there are many products consumed and relished because of their color. Color is not only of aesthetic value but may also serve to distinguish between types of drugs, as a visual aid to identification, and as a disguise for psychological deception.

There is another quality inherent in certain flavor ingredients which is important for those flavors used to cover or mask unpleasant characteristics. The efficiency of Fluid Extract Eriodictyon has been attributed to the paralyzing effect of the resins contained therein on the taste buds,[7] or on the ability of the resins to absorb basic components of a mixture containing quinine. Whatever the mechanism may be, there are other common flavoring components which

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are said to act in a similar fashion; for example, menthol by virtue of its cooling sensation, sodium glutamate which accentuates some flavors, methyl salicylate and vanillin[8] which have a numbing action in the mouth.

The official preparations have been reviewed to illustrate the mechanics of flavor, its characteristic effects and utility. Practically, these items are useful only in preparations in which they compose an appreciable or major proportion. It is obvious that there are many applications (capsules, tablets, etc.) in which their use is impractical and which require more concentrated flavors. For this purpose there are many flavoring products available which serve as replacements, contribute new effects, are more adaptable to varied application, and are more readily standardized. They may be either natural products, natural isolates, purely synthetic or a combination of natural and synthetic in varying proportions and strengths. To illustrate, Syrup of Raspberry USP may be replaced by a more concentrated raspberry juice, a raspberry concentrate fortified with natural or synthetic material or both, or a purely synthetic raspberry flavor. The available strengths of the flavor would be respectively increased and the applications are obvious: a low concentration and natural effect where a relatively large dose can be taken as in a cough syrup or an elixir; or a high concentration and perhaps less natural effect as in a tablet. There are equally numerous replacements for Syrup of Cherry USP. While there may be no exact replacement for such materials as Fluid Extracts Eriodictyon and licorice, the official formulas indicate practical replacements such as oils of cardamom, lemon, sassafras and clove for the former and oils anise and fennel for the latter.

Those essential oils in official use, such as orange, lemon, coriander, cinnamon, cardamom and peppermint, but more particularly the citrus oils, are available in many forms and types to suit various purposes. Flavor concentration has been attained along with increased stability and solubility. Oil of orange, for example, is offered as a pure expressed or distilled oil, a partially concentrated oil in five fold or tenfold concentration, or other values, and as terpeneless oil. Imitation oils are also available in all concentrations and may have a value beyond that of a lower cost. More than this, there are many oils not official which are of interest in their own right as new flavors or as closely related flavors. In the citrus group, we have oil of grapefruit, tangerine and lime. Among the spice oils, cinnamon Ceylon, ginger, marjoram, celery, sage, origanum and savory present flavor varieties which are being used to obtain different effects or certain advantages.

We shall only attempt to indicate the chief problems involved in flavor application and point out certain incompatibilities inherent in pharmaceutical products and how they might be overcome. The vast field of new pharmaceuticals presents a formidable array of problems and each one defies a standard flavor recommendation and requires a tailor-made flavor which will suit its

physical and chemical properties. The hydrogen ion concentration is not only a limiting factor for the type of flavor that can be used, but limits the use of such a flavor depending upon its constituents. Eriodictyon, for example, is incompatible with acids. In alkaline media, fruit syrups discolor and flavor is destroyed. Certain reactive groups such as aldehydes necessary in creating flavor are more or less rapidly affected by chemical changes. In alkaline media, cinnamon oil may lose the characteristic flavor, and oils such as clove may cause discoloration of the finished product. In liquid preparations precipitations may occur on storage, which a change in hydrogen ion concentration would rectify.

The sudden popularity of ammoniated dentifrices presented a real problem. Despite intimate experience with this formula, the opinions and evidence available are too conflicting to suggest an infallible solution and a great variety of flavors have been used more or less successfully. The presence of free ammonia, alkaline phosphates and urea presents a complex problem.

The most common and difficult problem is presented in the phenomenon of flavor fading. This can be caused by a simple evaporation as in a powdered or tableted product. In a powdered product, by insuring an even distribution, the flavor is absorbed on individual particles, thus forming a film which offers a large surface for evaporation, oxidation or other chemical change. The fixation of flavor with low vapor-pressure solvents is only partially successful. The possibility of spray-drying a flavor in a mixture with various sugars has been explored and offers possibilities. In the resulting powder the flavor is confined within each particle. There will, however, be considerable loss of flavor in the operation, and the economics of such a method must be proved. Such a powder could be granulated and tableted. Flavor fading may also be attributed to oxidation or polymerization. In such cases the active flavor principle may become flavorless through chemical change. These reactions require a period of time and it is customary to accelerate them when testing flavors by increasing the reaction temperature. This gives faster results but is not always a true test. Here, too, the modification of the formula by changing pH, moisture content, viscosity or other property may permit the use of the desired flavoring agent. Oxidation changes will occur with peroxides, thus limiting flavor selection. Reducing substances can be just as detrimental. The fading may also be caused by a saponification of an ester or an ester compound in alkaline media, which is a common occurrence in tooth paste and magnesia products.

Other oxidative changes may increase the flavor, but usually not favorably. Rancidity in the fats is a common phenomenon for which certain anti-oxidants such as NDGA, ascorbic acid and derivatives, various phenols and organic acids are employed in the fat itself. The so-called rancidity of essential oils, especially the citrus oils, is not as effectively preventable. For this purpose, the concentrated terpeneless oils

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Science has reached the stage where humanity can reasonably expect a cure for all the illnesses of mankind. Unfortunately, humanity isn't quite sure some branches of science will permit us to live long enough to enjoy the cures.

•

Those of us who had our ears boxed as kids for reading dime novel stories about rocket ships to the moon can't do the same to our own progeny. Tomorrow's New York Times may prove junior correct.

•

A friend of ours was all set to paddle his young son for wasting his time on magazine stories about a far away planet in which the inhabitants were of three sexes. The improbability was dispelled for father when he suddenly recalled certain Greenwich Village night clubs.

•

Today's big miracle drug is Cortisone, celebrated for its use in Arthritis and Rheumatism. When one considers that it comes from the adrenal glands of sheep, pigs and cattle, one shudders to think what will happen to the dietary laws of one's sick neighbors.

•

To us the fantastic success of sulfa, terramycin and other antibiotics was best summed up by the feller who said:
"My doctor is so smart, he even invented a cure for penicillin."

•

The Cosmetic Industry, of course, is still skeptical of laboratory successes. We won't be convinced, it seems, until a genius comes up with a vaccine that immunizes the shipper against returns from the customer.

George Fiedler

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have been proposed to good effect since the less stable elements have been eliminated or reduced.

A uniform distribution of flavor throughout the product is essential and for this purpose we have the permissible solvents such as water, alcohol, glycerine, propylene glycol and the fixed oils. Emulsions with gums, gelatin and methylated cellulose are also used. Dispersing agents or solubilizers, such as the esters of glycerine or sorbitol in combination with glycols are finding increased use. These various media modify the flavor not only as already indicated by changing the viscosity but also by changing the flavor solubility and volatility. Emulsions are milder in their flavor effects than true solutions because of less rapid absorption. Flavoring materials dissolved in fixed oils appear milder because of decreased solubility and volatility. Choice of solvent or emulsifier should be given careful consideration and may have considerable influence on product acceptance.

The new field of antibiotics is virtually unexplored. What the problems will be remains to be discovered. Fortunately, these products are adaptable to dosage in capsulated form but for certain purposes, as in infant therapy, liquid forms may be required.

Flavors, or more correctly their aromatic principles, have certain applications which may enhance the appeal of a product by covering up off-odor or contributing a pleasing odor to a neutral product, which will not be actually tasted by the consumer. A tablet with an enteric coating or a gelatin capsule is quickly ingested without perceptible flavor, yet the same product in its container may diffuse enough odor, as in certain vitamin concentrates, to be psychologically offensive. In such a case the coating may be flavored with an aromatic essential oil or a synthetic such as vanillin or coumarin which will cover the offending odor or enhance the appeal of a bland or neutral product.

It is quite apparent that a knowledge of the chemistry of the flavoring constituents is a material aid in predicting the stability of a flavor. Too often a flavoring problem is presented to a consultant along with a sample of the formula without flavor and without an identification of the basic ingredients. In this case, much effort must be wasted by the selection of flavors whose ingredients are not compatible or stable in the formula. The time required in testing for stability or shelf-life can be conserved by a sound knowledge of the composition of the basic formulas and flavoring materials.

An immediate problem and one which may cause increasing difficulties is raw material shortages. It is timely to review your consumption of flavoring materials and to check on their present and future availability. With the unsettled world conditions, closing of frontiers, different standards of currency, raw material allocations and increasing consumption, a selection of the most stable materials and a provision for the replacement of those likely to become scarce seems advisable. The interdependence of production and consumption is well illustrated in the case of cinnamon flavor. Cinnamon or cassia oil, originating

in China, is becoming more and more difficult to obtain. Increasing use is being made of synthetic replacements. This calls for a large proportion of cinnamic aldehyde which, in turn, is made from benzaldehyde, produced from toluene, a coal tar product. This is in particular demand in defense industries in plastics and synthetic rubber and since these come first today the supply available for the aromatic chemical manufacturer may be irregular if not completely lacking. We have not yet reached this eventuality. The synthesis of vitamin A from citral, derived from lemongrass oil, has already cut into the supply of this oil which was normally plentiful. Citral is an important flavor item and a basic material for the synthesis of other aromatics such as the ionones. The outlook is not all dark since research is constantly finding new ways to produce standard materials and new materials to replace these. The synthesis of benzol, a coal tar derivative, from petroleum is a case in point, but the problem of shortages is very real today.

To close on a more optimistic note, it is evident that greater care and attention are being given to the application of flavors to pharmaceutical products. The basic knowledge of flavor perception remains dim, but by the intelligently and cooperatively directed effort of all industries concerned these problems as outlined can be solved.

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7. "Flavors and their Pharmaceutical Application," Chapter I, Vol. 2 in "American Pharmacy," ed. by R. A. Lyman (Phila., J. B. Lippincott, 1947).
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The Story of Terramycin

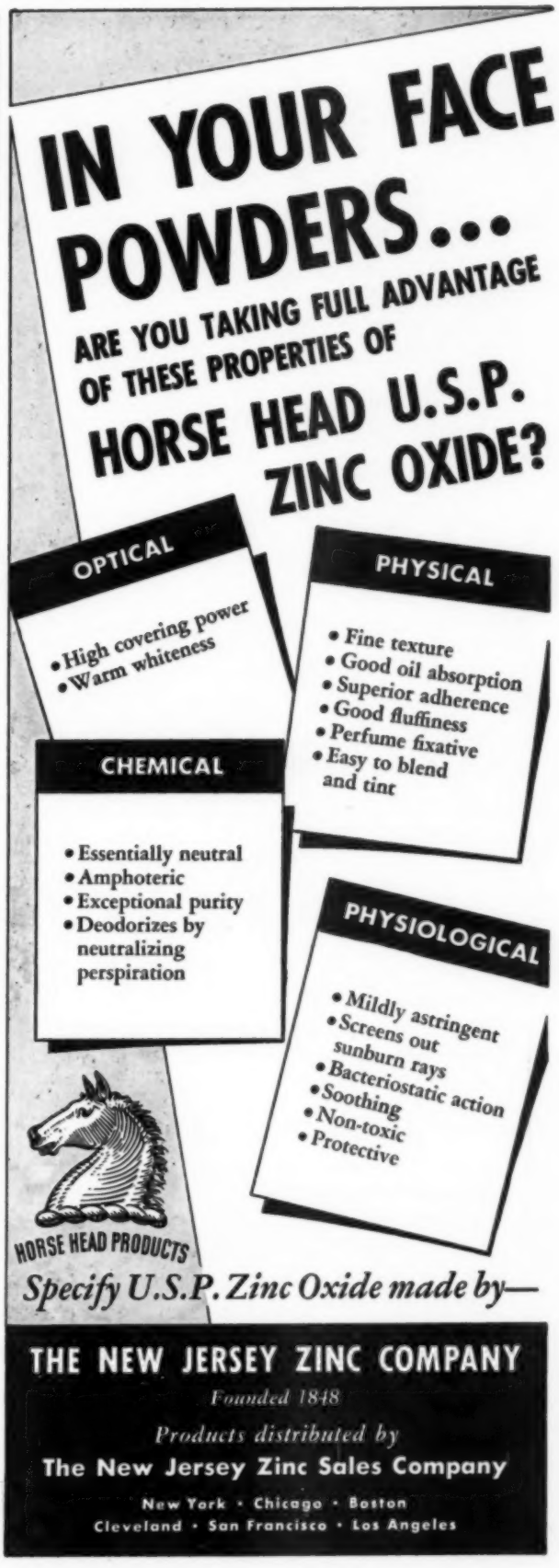
(*Continued from page 177*)

Eleven days after the Board approval, we employed Tom Winn, a man well-known in the industry, a man with 15 years' experience in pharmaceutical sales. A few days later we assigned Mr. Whitney, our chemical advertising manager, to the direct sales operation. He, in turn, arranged for the services of one of the leading ethical pharmaceutical advertising agencies.

By March 15, our direct sales staff consisted of a sales manager, a secretary, an advertising director and last but not least, *8 detailmen*. This was the starting Terramycin lineup; the sales organization that was supposed to break into an intensely competitive market against the combined 1,300 odd men of Lederle and Parke-Davis, and their 137 years of combined experience in ethical promotion and sales.

The Pfizer promotional program had, of necessity, to be simple and direct. Those who are familiar with the ethical drug market will recall that it has four basic components:

1.	The wholesalers	4-500
2.	Retail drug outlets	55,000
3.	Hospitals	7,000
4.	Physicians	125,000



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The only outlet that we could hope to cover adequately with our very limited personnel was obviously the wholesaler.

On March 15, the wholesale drug trade was informed individually by telegram that Pfizer hoped to be able to release limited supplies of the new wide-spectrum antibiotic Terramycin shortly for sale through wholesalers.

Seven days later FDA approval was received from Washington. A special telephone switch-board, installed in anticipation of this event, was in operation within minutes of the receipt of approval, with our 8-man detail staff detailing Terramycin by phone to wholesalers throughout the country.

Within *one hour* after the official release by FDA, shipments of Terramycin were on their way to wholesalers in the metropolitan area. March 23rd marks the first actual sale of Terramycin.

Almost before the last long distance call was completed, our 8-man detail staff was at the airport outward bound for the 48 states to contact the principal elements of the wholesale drug trade. Each man was equipped with special visual aids to assist in telling the wholesaler the Pfizer story, the story of Terramycin and how the Terramycin operation would benefit the wholesaler. Using planes, traveling our men at night and week-ends, we were able to complete the wholesale circuit in less than two weeks.

As the result of the telegraph, telephone and personal contacts, orders were received from nearly 99 per cent of the original list of wholesalers. We were amazed, we were flabbergasted. Stocks ran low, production schedules were revised and re-revised. We were in business—*or were we*? We had moved the goods to the wholesalers; but what about retailers' stocks—and then would the physicians prescribe the product?

As mentioned previously, our basic promotional approach was, of necessity, simple—we had to make the most of what we had. What is meant by this statement is probably best evidenced by certain situations that arose during the first few months of the Terramycin operation.

Early in January the product was still known by its laboratory code number. We needed a name that was short, simple, easily recognized; a name as the advertising men say "with a hook." Mr. McKeen suggested the name "Terramycin." The prefix *terra* seemed particularly fitting. The origin of the new antibiotic was, as you know, a bit of earth. The word was short and simple with a high recognition value. More important, the word provided the aforementioned hook around which we could build a wide variety of themes in our future promotion. This choice of a name later proved to be most fortunate for the following reason. Consistent with long established policy of the Journal of the AMA, we were not permitted to advertise Terramycin in that key medical journal pending Council acceptance of the product. However, there was nothing to prevent us from running a series of Pfizer institutional ads each expanding on some particular phase of the

terra theme. With final AMA acceptance on July 27, 1950, it was a comparatively easy matter to expand the *terra* theme to include the full name of the product. Thus, by doing the best we could—the simple thing—we were able to accomplish the otherwise impossible and obtain effective medical journal backing during those most critical early months.

The second promotional expedient which may be of some interest was the extensive use of personalized direct mail. We knew it would be several months before we could hope to develop an effective conventional journal program. Consequently, initial efforts were concentrated on personalized direct mail to the drug trade, the hospitals and the medical profession. During the first three months hardly a week went by without one and sometimes 2 or 3 national mailings.

Another expedient was the special hospital promotional program. In the middle of April, our new detail staff, now expanded to 20 men, began contacting the principal hospitals throughout the country. Two special promotional devices were employed; a modification of the wholesaler visual aids portfolio and a special hospital exhibit. However, probably the most important aspect of the hospital campaign was the fact that through it we were able to detail personally an estimated 30,000 physicians. If Pfizer had followed the time-honored practice of making individual physician interviews, not only would we have been forced to ignore the hospitals, but it may be doubted that the then available staff could have visited and detailed in the corresponding period much over 5,000 doctors.

I would like to mention one final instance which not only typifies the first few months of the Terramycin operation, but also the enthusiasm with which the new product was received. Display space at the key American Medical Association Convention is customarily reserved as much as a year in advance. Consequently, when we applied a few months prior to the convention, there was not a foot of space available. Furthermore, Terramycin at that time had not yet received AMA Council acceptance, a very important factor in the introduction of a new product. Nevertheless, we went ahead and prepared our exhibit in the middle of which was a removable panel. Orders were, if Council acceptance came through before the exhibt reached San Francisco, the panel went in. If acceptance was deferred, the panel went out. *The panel went in.* Not only this, but the space problem was finally solved by the last minute efforts of the AMA.

A good deal of water has passed over the dam since last spring. I used to think that things were hectic enough in those early days during the war when I was in Washington trying to get the sulfonamide, atabrine, and later the penicillin programs underway. However, it was almost a picnic compared to what we've gone through at Pfizer during the last few months in "Operation Terramycin." Nevertheless, the product has fully justified our early expectations and there are many people walking around today who would not be here were it not for Terramycin. Furthermore, distribution

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is excellent. Our product can now be found in a wide variety of forms in the majority of drug stores and hospitals. Our detailmen are contacting the drug trade and the medical profession with increasing frequency in towns and cities throughout the country. We are planning our 6th training class.

In conclusion, the Terramycin story probably is important from four angles; industry, science, distribution and national security.

From the industry point of view, Terramycin represents the fitting climax to this, the tenth year of the first decade of antibiotics; a period during which there has been a constant search for new and better products.

From the viewpoint of science, Terramycin has already been termed one of the major scientific achievements of the year 1950.

From the viewpoint of distribution, Terramycin is of interest since it shows that size or promotional dollars are not always the key to success; that confidence in an idea; confidence in a product; teamwork; headwork; hard work still can produce results; that no firm can afford to rest on its laurels; that 100 year old traditions frequently can and must be altered; that under our competitive system, a continuous reappraisal of the distribution function is essential to the healthy growth of a company.

From the viewpoint of national security, Terramycin represents a new type of antibiotic—a type of drug which because of its exceptional therapeutic effectiveness, its wide range of use and ultimate simplicity of administration, makes this type potentially the "drug of choice" in the event of a national catastrophe.

Developments in Dentifrices

(*Continued from page 179*)

has already been written on the proper kind of dentifrice for the most efficient cleansing of the teeth. Thus, some feel that an antiseptic dentifrice offers certain advantages. Others believe that a neutral or slightly acid dentifrice has better cleaning effects as compared with those of an alkaline product. Some argue in favor of a powder and some prefer a paste. There are those who say that a dentifrice is simply a pleasant adjunct to an otherwise unpleasant task and that a dentifrice serves no other purpose.

Despite this divergence of opinion, the preponderance of evidence indicates that an abrasive substance is necessary for proper cleansing. This is in line with the view given by the Council on Dental Therapeutics[9] that cleansing dentifrices are essentially scouring agents. Pertinent in this connection is the ruling of the Council,[10] as published in 1947, that acceptance would be granted only to those dentifrices with demonstrated therapeutic properties. This ended the custom of approving the so-called cleansing or cosmetic dentifrices.

In view of subsequent events this was a rather timely decision. In the past most dentifrices had been faced on two primary ingredients—an abrasive and a detergent. During the last few years, however, a number

of other ingredients have assumed major importance in the formulation of dentifrices.

Prominent among these materials are the several compounds, notably urea (carbamide) and dibasic ammonium phosphate, which are capable of releasing ammonium ions in the mouth. The story of these ammoniated dentifrices was told[11] in detail in this publication just a year ago. As was noted editorially[12] in the July issue, the position of the ammoniated products is becoming equalized in the general dentifrice picture, with one such item showing signs of being here to stay.

Arguments concerning the relative merits of the several types of ammoniated dentifrices still go on. Although much indicative data has been assembled, it is generally agreed[5,13] that more evidence is needed before the reduction of caries activities by the use of these products can be definitely established.

It is interesting to note that a patent[14] has been granted on the production of "ammoniated" dentifrices based on combinations of urea and urease. This is believed[15] to be the first patent granted on products of this class and hence it antecedes the still pending patent under which a number of licenses have been issued by the University of Illinois group.

The possibility that antibiotics could be used to suppress the acid-forming bacteria in the mouth has been noted by several investigators. Although other antibacterial agents are no doubt being studied, most attention has been focused on the use of penicillin. There is experimental evidence[16] that the use of this antibiotic helps to reduce oral lactobacilli in animals.

In clinical tests on a group of boys, Hill and Kniesner[17] found that the use of a tooth powder containing 1,000 units of penicillin per gram produced a significant reduction in susceptibility to dental caries. In the studies conducted by Zauder,[18] 174 children served as the controls, while 235 youngsters in the experimental group were given a tooth powder containing 500 units of potassium penicillin per gram. At the end of the first year, it was found that the children using the penicillin dentifrice developed 55.3 per cent less caries than the control group. At the end of the second year, this figure stood at 53.8 per cent.

Naturally, the question arises as to the possibility of producing penicillin sensitivity in the individual using the powder and penicillin-fastness in the bacteria that are exposed to it.[6] These factors were taken into consideration by Zander who pointed out that if the use of a penicillin-containing dentifrice had altered the bacteria associated with dental caries and had caused the development of penicillin resistance, it would be logical to expect that the antibiotic would have no effect on caries during the second year of the study. From the findings, it is obvious that this did not occur. The only adverse effects observed was drying and cracking of the lips which occurred in six children from the penicillin group and in 13 from the control group. In most cases a temporary withdrawal of the dentifrice permitted the condition to disappear

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and it did not recur when the powder was resumed. In two cases, however, the dentifrice had to be discontinued entirely.

This phase of the investigation was carried further in a study of 4,480 adults who used the penicillin dentifrice for a period of three months. Of this large group, one individual developed black tongue, six had a facial rash or soreness of the oral mucous membrane, and 28 showed drying and cracking of the lips. These symptoms disappeared rapidly on discontinuance of the penicillin tooth powder.

In 41 persons who had shown no reactions to intramuscular injections of penicillin before using the dentifrice there was also no reaction following intramuscular injection of 10,000 units of penicillin after the use of the dentifrice. It was therefore assumed that these subjects were not sensitized by the three-month use of the penicillin product. In further tests, a group of 35 patients, selected for their known sensitivity to penicillin, were given the penicillin dentifrice. Only two developed dryness and cracking of the lips.

Of pertinent interest are the preliminary studies made by Goldman and Troustein[19] with a tooth powder consisting of calcium phosphate, a wetting agent, flavor and 500 units of penicillin G per gram. Their work with small groups of patients indicates that the use of such a dentifrice by individuals with known and occasionally still active penicillin hypersensitivity produces few local reactions and no known systemic reactions.

A penicillin tooth powder, known as "Dentocillin" is now being marketed by the Andrew Jergens Company, Cincinnati, Ohio. At present the product is being supplied only on prescription.

Interest has also been aroused by the results obtained with "Chloresium" tooth paste, a chlorophyll-containing dentifrice made by the Rystan Co., Inc., Mount Vernon, N. Y. There is evidence that this product is effective, not only against the acid-forming bacteria, but against mouth odors as well.

The potentialities of chlorophyll as a caries-preventing agent was indicated in the studies of Hein and Shafer.[20] This view was extended and amplified in the reports presented by Rapp and Gurney.[22] Here figures were given which showed that two brushings a day (one preferably after breakfast when the acid count is highest) with the chlorophyll tooth paste resulted in a negative *Lactobacillus acidophilus* count in 26 per cent of the subjects within ten days. By the end of a four-week period, the preparation had risen to 42 per cent and by the end of the twenty-sixth week 96 per cent of the subjects were negative and had been for quite a while. The deodorizing properties of the chlorphyll tooth paste, which adds considerably to its value as a dentifrice, have already been discussed[22] in this publication.

Another approach to the problem is based on the view that the chemical action which occurs during the caries process can be prevented by the use of an enzyme inhibitor.[23-24] Thus, as noted by James,[25] even though

it might prove impossible to eliminate bacteria from the mouth and thereby prevent acid production, it is theoretically possible to accomplish the same end by inactivating certain bacterial enzymes and in this way prevent acid formation without in any way changing the number of bacteria in the mouth.

He points out that vitamin K has theoretical possibilities in such a method for controlling caries. It has been shown that when small amounts of this substance are added to saliva there is a decrease in the amount of acid produced form carbohydrate by the salivary bacteria. Menadione, or synthetic vitamin K may be used and the water-soluble form of this compound has been incorporated in a tooth paste. Sold under the name, "Anti D-K" (Anti Decay Corp., Bronx, N. Y.), it is said[26] that more than a million tubes of the dentifrice are sold each year. The anti-caries action of the vitamin K is heightened by the inclusion of urea as a source of ammonium ions.

There is a definite need for further evaluation of the effectiveness of vitamin K in dentifrices. Pertinent in this connection are studies which, as cited by Holland,[27] indicate that where tooth decay is already present the vitamin does not retard the decay because there is a mechanical protection that prevents the intrusion of this substance. In addition, there is the serious question as to what effect enzyme inhibitors will have on the digestive enzyme systems, if swallowed.[6]

In passing, it should be mentioned that vitamin C has also been proposed as an advantageous addition to dentifrices. According to Taylor's[28] patent, the addition of more than 0.5 per cent of ascorbic acid to liquid, powder or paste dentifrices facilitates the removal of oral mucinous coatings. He claims the acid alters cohesion and viscosity by coagulation of the coating.

Of course, investigators have not overlooked the possibility that fluorides, with their growing stature in the field of caries prevention, might play a similarly useful role when incorporated in dentifrices.[4] While the fluorides are proving effective when present in proper proportions in drinking water and when applied topically to the teeth,[29-30] the Council on Dental Therapeutics[31] has stated that evidence to justify the inclusion of fluorides in dentifrices or mouth washes is lacking. Nonetheless, a dentifrice containing sodium fluoride is on the market. In addition, a foreign patent[32] provides information on methods for incorporating a fluoride in tooth pastes. Thus, a paste is prepared which contains, in addition to the usual ingredients, 0.1 per cent of sodium or potassium fluoride and preferably about 1.0 per cent of a soluble citrate. About half of the fluoride is said to be absorbed by the teeth.

From time to time, various other substances are recommended as being of particular value or imparting certain characteristics when incorporated in dentifrices. Rossi,[33] for example, speaks highly of the usefulness of sodium sulforicinoleate for removing scale from the teeth. Although this action is not pronounced, the regular daily use of preparations containing sul-

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foricinoleate results in the elimination of the scaly deposits on the teeth. He attributes the effectiveness of the compound to the presence of the sulfonic group linked with the molecule of the ricinoleic acid. Sodium sulforicinoleate is prepared by slowly treating pure ricinoleic acid with concentrated sulfuric acid and neutralizing with sodium hydroxide.

Rossi presents several formulas to illustrate the use of the compound in dentifrices. He describes the following as one that is currently being pushed commercially in the United States:

Soap powder, USP	**5 per cent**
Sodium sulforicinoleate	**5 " "**
Calcium carbonate, precipitated	**45 " "**
Basic magnesiuim carbonate (magnesia alba)	**25 " "**
Sodium hexametaphosphate ("Calgon")	**2 " "**
Water, flavor and color	**sufficient**

It is noted that the ability of this dentifrice to eliminate scale is due, not only to the presence of sulforicinoleate, but also to the inclusion of the hexametaphosphate, a compound capable of dissolving or dispersing the scale-forming calcium salts.

An oxidizing agent is included in the tooth powder sold under the "Neutrox" name by the Vick Chemical Co., New York City. The product, which is ethically marketed, is advertised to dentists as a home-use adjunct in the treatment of gingivitis and Vincent's infection. "Neutrox" is a mixture of the oxidizing agent, sodium perborate mono-hydrate, with acid calcium phosphate, magnesium carbonate, tricalcium carbonate and small amounts of sodium chloride, saccharin, sodium lauryl sulfoacetate and flavoring agents. However the Council on Dental Therapeutics[34] feels that the daily use of a dentifrice which contains a strong oxidizing agent does not appear to be warranted or desirable.

New types of abrasive agents are suggested in a foreign patent.[35] Thus, according to the patent claims, the polishing components of a tooth paste may consist of lactose or lactosates, such as calcium lactosate. A general formula for dentifrices containing such materials is given as follows:

Lactose	**45 per cent**
Water	**27.5-43.9 " "**
Thickener (methylcellulose or tragacanth	**3-5 " "**
Glycerine	**5-10 " "**
Soap	**2-10 " "**
Aromatizer	**1-2 " "**
Sweetener	**0.1-0.5 " "**

A special fraction of oat flour, isolated by Musher,[36] is claimed to be a valuable binding agent and stabilizer for a variety of products. In tooth pastes, the oat fraction not only serves as a good binder, but also contributes foaming characteristics to the composition thereby eliminating the need for soap in the formula. This is illustrated in the following mixture for making a tooth paste:

Milk of magnesia	**22.0 parts**
Magnesium carbonate	**12.0 "**
Calcium carbonate	**16.0 "**
Glycerite of starch	**12.0 "**
Glycerine	**11.5 "**
Mineral oil	**1.5 "**
Saccharin	**0.1 part**
Special oat fraction	**5.0 parts**
Water	**19.9 "**
Preservative	**sufficient**

Flavor, long recognized as an important factor in the acceptance and popularity of a dentifrice, has also come in for a shore of attention during the last few years. In discussing the flavoring of dentifrices the British authority, Mansfield[37] remarked that peppermint oil still reigns supreme as the favorite in England, but that in the United States there is a preference for the oil of wintergreen flavor as provided by Methyl salicylate.

Of decided interest in this connection is Klippert's[38] discovery that the wintergreen type of flavor may be prepared and used in tooth powders in a dry, non-volatile, solid form. Sodium methyl salicylate is particularly effective for this purpose, since it does not evaporate away but remains in the dentifrice until used. During use, the mild acids of the saliva dissolve and convert the sodium methyl salicylate to free methyl salicylate which then imparts the typical fresh, pleasant wintergreen flavor at the point of use. If desired, suitable mixtures of these non-volatile substances and volatile flavoring agents may be used to give the product a pleasing scent. The use of the new material is illustrated in the following formula for a tooth powder:

Dicalcium phosphate	**92.0 parts**
Saccharin	**0.1 part**
Sodium glyceryl monolaurate sulfate	**5.0 parts**
Sodium methyl salicylate	**3.0 "**

The ingredients, in finely divided form, are mixed and then packaged in ordinary cardboard containers rather than in the air-tight metal containers generally required.

A new departure in dentifrice flavors, and one that rates attention, is evident in the products developed by the Tasty Tooth Paste Corp. of Mount Vernon, N. Y.[39,40] Veering from the usual line of flavors and aiming their tooth paste at the juvenile market, this organization has given their products two intriguing flavors; strawberry and bubble gum. In addition to these palate-pleasing agents, the tooth pastes are said to contain "three neutralizing ingredients." A preliminary survey among some 200 children indicates a ready acceptance for the new idea and will, no doubt, prompt others to do likewise.

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FDA Answers Its Cosmetic Mail

(*Continued from page 183*)

of the ability of these creams to accomplish the results promised but we are not at this time in a position to disprove the claims made for them.

We have also given considerable attention to whether or not these creams may be harmful. From a theoretical standpoint they would not be considered innocuous, but there is no conclusive evidence that harm has resulted from the use of creams containing the amounts of estrogens found in these now on the market. Because of the lack of definite information, especially concerning the ultimate effect of continued use of these creams, we have consistently informed manufacturers that we do no look with favor on their distribution for lay use.

The above paragraphs have been in use for some time in replies to either trade or consumer inquiries. Recent contacts with the Administration indicate that they are reconsidering the text of this letter in the light of all available scientific facts. The products have been on the market for around ten years. Officials agree that it is time to take another look to see whether their attitude should be changed.

You may be interested in what FDA is saying in reply to many letters about chlorophyllin deodorants. It's briefly this: "We have had no opportunity to arrange for clinical studies." This is followed by a listing of the several scientific articles published to date. I understand three references are being cited, but not the one from the *Readers' Digest*. FDA does not have to mention that article—the public knows about it already. Included in the flood of mail which followed publication of the *Digest* article was a postal card reporting a simple "clinical experiment" as follows:

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Very seldom do consumers ask FDA whether a cosmetic product will do what the manufacturer claims in the way of beautification. Such claims, especially those in labeling, appear to be accepted as truth. Skepticism is more frequently reflected in letters asking whether products will actually stop body odors, remove blemishes, lines or wrinkles, or restore the color of the hair.

Product Injury Reports

Product injury reports are another routine form of communication. One FDA official says that many of the reported injuries, if described correctly, can't possibly be due to the products suspected. But just try to tell that to the lady who wrote in! Associating what seems to be cause and effect, she has decided that it is her duty to let the Government know what happened. Officials do not discount the potential importance of such "leads." Every one is carefully checked to see if the law has been violated, and all such letters get an appreciative (but frequently non-committal) acknowledgment.

Sometimes the reported injury is real enough, but is due to misuse of the product. Recent reports involving neutralizers in home permanent wave kits are a good example. The injuries turned out to have resulted from drinking the solutions (despite label warnings not to do so.) Children are frequently the victims of such accidents, often due to parental carelessness in leaving bottles, glasses and utensils where children can get them. Not so common, however, was the case of the little neighborhood ladies' club which was having an afternoon "hair-waving party." The day being hot, somebody suggested lemonade. All the ladies thought it was a wonderful idea, but in the excitement it was forgotten that the pitcher contained the unused neutralizer. One lady thought she was drinking a Tom Collins, because it "tasted like gin." Soon the party adjourned to the hospital, to get pumped out.

Sometimes an inquiry comes after a physician has diagnosed a case as cosmetic dermatitis, when the facts indicate that this is very improbable. Obviously, FDA can't reply that the doctor, a professional man, either jumped at conclusions, or lied because he didn't know the real cause, or mistakenly blamed an innocent product. FDA has no mandate to take sides in such cases, unless there is a real violation of the law. If the lattter appears likely, an investigation is made. Otherwise, correspondence on such matters is handled by tactful, non-commital acknowledgments.

A very common form of query is: "My doctor says I am allergic to orris root. Do you know any powders that do not contain it?" FDA replies that this ingredient is almost unused today, except in sachet powders, which are not used in contact with the body and therefore are not subject to the Act.

As is well known to the cosmetic industry and the medical profession, allergies more often than not are very difficult to diagnose. Most patients are unwilling

to take, and pay for, the number of tests necessary to run down the exact cause. A doctor may start off with the standard allergens and make tests until he gets a positive reaction. The guilty material is then deemed to have been found, sometimes without even establishing whether the patient has ever been in contact with it. More typical, probably, is the lady who has a sudden case of boils or some other skin eruption. She tells her doctor she has been using a certain cosmetic for several months and the doctor attributes the disturbance to the cosmetic, but makes no patch test to confirm the diagnosis.

Perhaps we may seem to have been a little rough on the medical profession. It should be added that consumers who take their skin disorders to a dermatologist will usually get a more expert diagnosis. FDA in fact receives a great deal of help from the medical profession in handling cosmetic problems. The first knowledge of a real health problem involving cosmetics usually comes from an observant physician. That is what happened in the fingernail base coat cases, the hair lacquer incident, and the scalp injuries from caustic hair straighteners.

Taking up another type of public inquiry, FDA also gets a substantial volume of mail from people who have the idea that they want to go into the cosmetic business. For some reason there has been a run of mail lately from firms and individuals who want to "register" drug and cosmetic formulas, labels, and even trade-marks, with the Food and Drug Administration. Many other countries, and a few states, have registration laws, but the U. S. does not and relies for protection on its law against the shipping of misbranded or adulterated products. Trade-marks are registered by the U. S. Patent Office, and copyrights by the Library of Congress. These queries result from almost total ignorance, even by attorneys, of the form of control administerd by FDA.

Labeling Queries

Queries about labeling make up the bulk of FDA's correspondence with cosmetic manufacturers. If it were not for the fact that cosmetics are fashion merchandise this correspondence would probably be much heavier. Elegant packaging demands that label copy be kept to a minimum. This cuts down the number of claims which might appear on cosmetic labels and reduces the legal questions which might arise regarding them.

A common type of inquiry is: "Am I justified in adding 'With Lanolin' to my label?" The answer depends, of course, on how much lanolin is to be added and what else the product contains that acts like lanolin. The problem put up to FDA is to determine whether the ingredients justify the claims—and vice versa, whether the claims are justified by the ingredients.

Raising an important perennial question, a recent letter asked for comment on proposed labeling of a product containing a proprietary article as one of its ingredients. FDA declined to state its opinion of the

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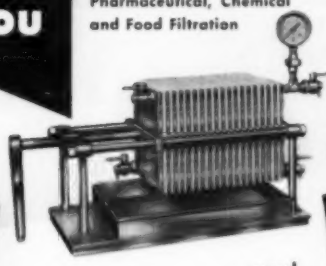

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proposed label in the absence of more detailed information regarding the formula.

In this kind of situation, FDA is frequently in the position of not wanting to let its right hand know what its left hand knows. In short, it already has the missing information, from other sources, but has it on a confidential basis. If the supplier will not tell his customer what is in the composition, and this information has not been published in some way (as in a scientific journal) then FDA does not care to be in the position of revealing what may be regarded as a trade secret. A discussion of the labeling might easily do this.

FDA has always taken the position that formula information is essential to any discussion of labeling, whether of foods, drugs or cosmetics. Therefore, say FDA-ers, to discuss labeling, both parties must know the formula. In cosmetics the problem is complicated these days by the increasing use of proprietary wetting agents, emulsifiers, synthetic detergents, etc.

Sometimes the manufacturers of such ingredient products will advise FDA of their composition and ask that the formula be held confidential. Officials do not regard this as a satisfactory basis for discussing label problems with a third party (the user). As one official put it, "Nobody in his right mind would use an unknown ingredient in a cosmetic product." It boils down to this, in FDA's opinion: Suppliers should tell their customers what they are selling, and cosmetic firms should insist on getting the information.

Very interesting is the mail which FDA receives from members of Congress. A whole book could be written on this but we will merely point out that Congressional mail falls into five classes: (1) Inquiries relayed through the Congressman because writers do not know where to send them; (2) the writer knows the Congressman or Senator personally; (3) the writer thinks he will get better service from an elected official; (4) the writer is giving the member H——about something that may involve 20 different agencies, and the member is trying to get the answers from all of them; and (5) the writer is in trouble with FDA and wants a friend at court.

After doing a great deal of personal "leg work" around Washington in behalf of a businessman, a "freshman" Congressman was heard to say "What an awful lot of trouble for one vote!" The longer a member has been in Congress the more likely he is to just transmit the letter.

Foreign mail is another interesting category. Usually through the State Department, FDA receives queries asking about the legal status of products sold in the United States, which are being offered in a foreign market. Recently a foreign government received protests from its organized beauty shop operators regarding home permanents imported from the U. S. FDA assured the State Dept. that they are absolutely legal in this country.

The reverse of this is the foreign country seeking to do business here and wishing to know our legal requirements. FDA has a booklet giving general information in reply to such queries. Several translations of this

booklet have been made by trade-minded people in other countries.

Finally, FDA receives some letters which, officially or unofficially, it just cannot answer. Some of these should have been addressed to other government departments. Some are referred to FDA by other departments. FDA has its own rule against "buck passing:" No letter may be referred to another department without a check to find out if it really belongs to that bureau or department.

Sales Problems and Production

(*Continued from page 185*)

What about Production? If Production has not been kept currently informed of the product progress through the end, Research and Food and Drug Aministration phases, the date of introduction will be materially and sometimes disastrously delayed.

So once again is emphasized the continual need of a close and a harmonious relationship between Production and Sales, with conferences being held when necessary.

Introduction of a new product means that an estimate of potential sales must be compiled, national distribution in all channels of trade must be effected, shelf stocks must be on local and Branch depot shelves, and all field representatives should be in possession of product samples and literature. All of this must be accomplished before advertising breaks in medical and drug journals and through direct mail and before active detailing of physicians is instituted. This is no small undertaking and any false moves can be serious and costly to remedy.

Sales of the newly introduced specialty must be followed closely and upward trends in excess of estimated turnover must be relayed promptly to Production in order that additional stock runs can be made to take care of demands created.

There are occasions, as we all know, when the Sales Department makes unexpected demands on Production. Sometimes they are because of errors in tabulating or calculating, sometimes they are machine errors. We, in sales, dislike these occasions as much as Production does. It is believed that they are kept at a minimum and every effort is made to prevent a recurrence. In the majority of instances, these unexpected requests are for specific and justifiable reasons.

Here are examples:—

Marketing research surveys are continually conducted. A survey may divulge that in a certain section of the country, let us say hypothetically in the West South Central states, a competitive product has shown marked upward sales trends because of heavy mail promotion and/or because of intensive detailing.

Sales and Advertising go into a huddle and a sectional promotional campaign is decided upon. We then approach Production for a rush sample run, to utilize in conjunction with a special mail campaign to that particular section of the Country. We need it and Production gives it to us. How, I do not know, but get it we do.

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We follow closely reports as furnished by Harry Knox of Market Research Associates which give us a very comprehensive national picture of specialty prescription trends. Nielsen reports are likewise utilized productively. Information derived from studies of such presentations may result in an approach to Production by Sales for a rush production run of either national or sectional scope.

One more reference is due relative to a new product introduction. All departments involved are in complete agreement as to the introductory date, and all plans are geared accordingly. Authentic information becomes available that a competitive product is scheduled for introduction on a date earlier than we have decided on.

Here, in newspaper jargon, we have a dead line which we must beat. So, once again, Production and Sales get together because a major problem has presented itself.

Medical Procurement

(Continued from page 171)

equipment and supplies that will conform to the standard industrial practices of our suppliers while, at the same time, meeting specific military characteristics. We like to carry this objective one step further to provide that with regard to every item there should be a minimum of three prospective bidders who can offer specification bid without difficulty. It is obvious that in most cases we are able to make it possible for more than three prospective contractors to offer specification bids, but unfortunately, there are a few troublesome items which, for one reason or another, are obtainable from fewer than three sources. It is our earnest desire to keep such instances to an absolute minimum.

Prior to the declaration of a national emergency by the President in December, the vast majority of procurement accomplished was by means of formal advertising and competitive bidding. Since that time the emphasis has been shifted, for reasons which may not concern us at this time, so that at the present time practically all procurement is by negotiation. It might, therefore, be profitable to indicate the differentiation between these two methods. In the advertised formal bid method of procurement, invitation to bid is prepared and sent to all companies listed on the list of qualified bidders for the individual item or items under procurement. A specific opening date and hour is established and all bids are publicly opened at that time. Any bid submitted too late to be available for opening at that time may not be considered and no modification of the bid so submitted is permissible. Such a bid becomes the formal proposal of the prospective contractor and under procurement law if that proposal is accepted by the Government within a reasonable time after the date of opening, a formal contract exists. Under certain circumstances if a bidder has made an honest error, relief may be afforded through proper application to the Contracting Officer and approval by the Comptroller General of the United States. I should like to say here that the vast majority of claims of error on formal bidding received by the Agency during the past three years have been due to failure on the part of the bidder to carefully read and evaluate the specification or the delivery requirements indicated in the schedule of the invitation. It has been very specifically pointed out by the experience gained that the company representative responsible for preparing bids should in every case, assure himself that he thoroughly understands what is wanted and when and where it is to be delivered to the Government. It is quite true that the Contracting Officer has as his responsibility the evaluation of bids received to attempt to determine whether or not obvious error exists and you will probably, on occasion receive inquiries from the Contracting Officer as to interpretation of your bid, more particularly, a request that you verify your bid. Such a request should alert you that either your price is seriously out-of-line or that some conditions you have cited are of wide variance from the specification so as to lead the Contracting Officer to suspect that an error has been made. Consequently, a request for verification of bid should lead you to a very careful evaluation of what you have sent in before. It has been our experience that if a bid is queried and verified by the bidder and subsequently a mistake comes to light, it is most difficult to secure relief.

With regard to informal proposals and negotiated procurement as contrasted with the formal bid-public opening, the preparation is essentially the same, the schedule of material and specifications are sent to as many of the firms on the list of acceptable bidders as the time available for making the procurement will permit. In these requests for proposal a date of opening is specified, however, there is not the final effect as the date and hour specified in the invitation to bid. Proposals are desired as near to the date specified as they may conveniently be submitted. The essence of negotiated procurement is speed of accomplishment by reason of early requirement for the material or other considerations which preclude the use of formal advertising. Upon the receipt of proposals in response to such a request, an evaluation is made and usually a determination is made that one bidder has submitted a low and acceptable bid or that no bidder has submitted an acceptable bid. It is our standard practice at this point to query either all bidders or all except the lowest bidder with the statement that the proposal submitted is not the low acceptable proposal with inquiry as to whether or not a better proposal can be made. In the event that one or more bidders who were not originally low by reason of this second query become low, the bidder who was originally low is also given a second opportunity to improve his offer. This procedure then has the effect of a reverse auction to a limited extent. It is our constant desire to be as absolutely fair in these negotiations as it is humanly possible to be. Particularly, no company will have more opportunities to improve his prices than any other and no information as to prices or conditions quoted by one bidder will at any time be made available to another

bidder. No bidder is given any indication as to how much reduction in his earlier proposal would be necessary to bring him into the competition. At this point it is well to bring out also that under certain circumstances if the proposal of the bidder who is finally determined to be low is considered to be out of line with current market conditions, he will be appraised of this fact and further negotiations conducted with him with a view to attempting to arrive at a mutually agreeable contract. As a simple expedient for the man preparing bids and proposals for the company, I might indicate that the best and easiest way to determine whether a particular procurement is by formal bid or by negotiated procurement is by inspection of the invitation number. The standard invitation to bid and request for proposal is designated by a series of letters and numbers each of which has significance. These series of letters and numbers start out with the designation: MPA-30-287. This series indicates that the proposal is promulgated by the Medical Procurement Agency and the accounts resulting from any contract made as a result of such an invitation will be handled under the account No. 30-287. The letters, "md" indicate that the material is for use by the Medical Department. The figures "51" indicate the Fiscal Year of the appropriation to be used and the succeeding figures indicate the serial number of the invitation. In the case of formal bids these series of numbers will stand alone. In the case of request for proposal on negotiated procurement, these series of numbers will be followed by the letter "N" indicating negotiation.

Upon the completion of evaluation of the bids or proposals and determination that one bidder is the low and acceptable bidder, the offer is accepted by the Government by means of a notification of award. Upon receipt of a notification of award, it has been held that a formal contract exists and the subsequent preparation and signature of the formal contractual document merely authenticates the agreement previously represented by reason of the bid and acceptance. The formal contract, by law, may contain no provisions not negotiated and contained in the proposal or bid with one exception: it must be based upon mutual agreement between the bidder and the contracting officer. In the event urgency of delivery necessitates acceptance of other than the low bid, for the sake of earlier delivery than that offered by the low bidder, assurance must be had that the offer of earlier delivery at an increased cost to the Government was not made for the sole purpose of securing the business with the thought of stalling on delivery until a later date than that offered.

Accordingly, in the interests of fairness to the low bidder who did not receive the award, the bidder offering earlier delivery will be approached with a request to accept liquidated damages in an amount calculated to recover slightly more than the difference in price existing between the two offers. Liquidated damages are customarily calculated on the basis of a

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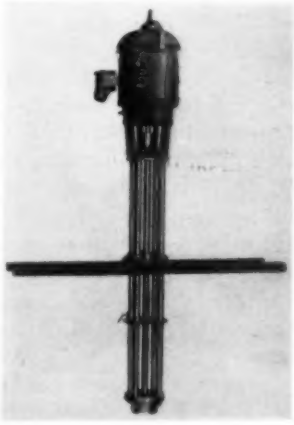

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certain percentage of the value of the material for each day of delay beyond the scheduled date of delivery.

The quesion of inspection has been a matter of some concern to both the Agency and the contractors. We feel that we owe it to our contractors to assure that they will not be denied business by reason of unfair competition on the basis of specification bid on which they later salvage a certain portion of the cost of supplying material by reason of variations from specified standard of quality. It would obviously be unfair for you to have to supply material at a certain price with the full intent of living up in detail to the specifications and lose the business to another bidder who offers a lower price and then has material accepted which is a lower grade of material or a less expensive method of packing and packaging than that required by the specification.

I have been led to believe that there are a few companies doing business with our Agency who can always find a good reason for supplying material a little bit less costly to produce than that specified in their contract. It is not our intention to permit any contractor to be in a position to feel that our inspections are so carelessly done as to lead to their being unfairly treated in this manner. It follows that in addition to protecting the interests of unsuccessful bidders, we have another responsibility and that is to assure to the Government that the quantity and quality of material for which appropriated funds are expended will be actually received.

Probably the two most controversial articles appearing in our current contracts are those dealing with price redetermination and price renegotiation. The article dealing with price renegotiation is required by law to be included in every contract arrived at as a result of negotiated procurement. The law further provides that renegotiation shall apply on a company-wide basis to all Government contracts held by that company in which the aggregate value of the individual contract is $1,000, provided the total value of negotiated contracts, each of which is $1,000 or more, amounts to $100,000 in any fiscal year. In this type of renegotiation, since it is conducted on a company-wide basis, it is quite possible for a company to lose substantially on one contract or to fail to profit on one contract, make an unacceptably high profit on another contract, and balance the one against the other. By Congressional action, the inclusion of the price renegotiation article in such contracts is automatic and may not be obviated.

Price redetermination, on the other hand, is established by Executive Order for a very different, but no less real purpose. Any money recovered for the Government as a result of price renegotiation reverts to the credit of the Government in the Treasury. Any money recovered on price redetermination reverts to the appropriation against which the contract is drawn and may be re-obligated against additional procurement properly chargeable to that appropriation. Accordingly, it has been ruled that in the negotiation of a contract if it cannot be affirmatively determined that the price is so reasonable that the application of the principles of price renegotiation cannot recover any unallowable profit, price redetermination must apply. It is on this basis that in negotiation of contracts you will be asked to supply cost breakdown in sufficient detail so that cost analysis can be applied to determination that the price is or is not reasonable and that excess profits may or may not be recovered by redetermination. This cost breakdown serves the further purpose of affording a basis upon which to plead negotiations to be conducted in price redetermination or price renegotiation, as the case may be. We have been led further to believe that the Price Renegotiation Board of the Department of Defense is very apt to omit from consideration any renegotiation action in a contract which has been subject to price redetermination. I should like to bring out at this time that one of the principal objections from industry to supplying the information necessary under these two articles has been a fear that the information so supplied might, in some manner, become available to competitors to the disadvantage of the companies' supplying the information. This danger has been recognized by the military procurement agencies and every possible precaution has been and will continue to be taken to assure that no information so obtained will in any fashion become available in such a way as to reflect disadvantageously to the company supplying the information.

The question of scarcities and critical materials and assistance in obtaining supplies for use in performing against military contracts is becoming increasingly important. You will all recall the basic outline of the Controlled Materials Plan during World War II. Some of you will recall that plan with pleasure—others with serious misgivings. As a means of being prepared to furnish acceptable assistance with regard to scarce and critical materials, this Agency started some two years ago to accumulate necessary data by which effective assistance in this regard could be rendered. First of all, we went back to World War II files and extracted all available information as regards bills of material and other data looking to the establishment of the over-all requirements of the various raw material required either in the fabrication of the individual item or in the packaging and packing of the finished product. We found to our dismay that many of the bills of material we had were seriously inadequate or inaccurate. As a result, there were some 3,000 individual items of supply in which it became necessary to obtain new bills of material. We realized the only source for an accurate evaluation of the raw materials necessary for the production of these items was the manufacturer. We realized further that the work necessary to properly prepare bills of material would be tedious, time-consuming and expensive. Accordingly, since we did not feel that it was fair to ask manufacturers to do this work for free, we felt that the most satisfactory method by which some legal compensation could be had was by requesting in the invitations to bid on procurements of reasonably large quantities of the individual item

concerned, that the delivery of the material should be accompanied by a detailed listing of the raw materials necessary in its fabrication. This would permit all bidders to figure the cost of repairing bills of material into the basic cost of the material to be supplied and no bidder would have the advantage over another in this regard. Unfortunately, some bidders understood that we desired the bills of material to accompany the invitation to bid and accordingly, refused to participate. Others neglected to figure the cost of preparation of bills of material in their price and others completely overlooked the requirement for the supplying of the bills of material until delivery had been accomplished and payment was withhheld because the essential requirements of the contract had not been fulfilled. We regret that these misunderstandings arose, but despite the misunderstandings and the difficulties, we now find ourselves in the position of being able on relatively short notice to notify the National Production Authority just how many pounds of this, or tons of that, or square feet of the other, are required to produce any specified quantity of any item for which bills of material are available. I think I need not dwell on the importance of having such information rapidly available. It serves the additional purpose of enabling us to determine when and under what circumstances substitute materials have to be authorized. We believe that as defense production continues, these bills of materials, so hardly come by, will play an ever-increasing part in alleviation of your production difficulties.

The defense order rating system which was established in the Fall has accomplished a considerable amount of benefit, but I think we may all expect that something further will shortly be required. I shall not offer any predictions as to the form or the direction that such modification may take, but I do feel that we are fairly adequately prepared to render service to you in obtaining the necessary materials upon which you may base your production plans.

My final suggestion is that you consider the Agency as the primary source from which to obtain information on any topic with regard to procurement about which you have misgivings or doubt. We intend always to be at your service and available for consultation on your call.

READERS' QUESTIONS

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